



the monitor

Centre for the Study of Inflation and Productivity

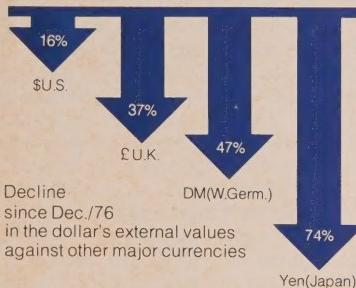
CA1

EC700

- M55

Inside**Dollar Depreciation:**

- What happened? 11, 14
- What can we gain? 15
- Recovery in paper products 17
- Struggle in electrical 18

How our dollar has fallen**Settling out of controls:**

- The danger signal 4
- Brickbats, bouquets 5

Oil prices:

- The \$2.3 billion subsidy 16

Dairy policy:

- Inefficiency in perpetuity? 20

**Electricity rates:**

- Turn on now—pay later? 8

This is no time to relax

With the end of controls the major responsibility for containing and reducing inflationary pressures in Canada has reverted to individual decision-makers. Their performance to date warrants mixed reviews.

Some initial post-control trends are worrisome and a matter for increasing concern.

There is a distinct upward trend in early post-control wage settlements. Undoubtedly those increases were partly conditioned by last year's 9% inflation rate. Those who believe that last year's high CPI increase should form the basis for forthcoming post-controls wage and salary decisions should keep two points prominently in mind:

1. Prices rose by about 3% last year as a direct result of the depreciation of the Canadian dollar. Canadians as a whole cannot recover this loss of purchasing power by paying themselves higher incomes now. The loss of purchasing power is a real income loss by Canadians to other countries. It simply has to be absorbed. Attempts to recapture the loss will bring more inflation and could lead to a further depreciation of the dollar.

2. The prices of meat, fresh fruit and fresh vegetables rose by 30% last year because of a cyclical shortage of beef, poor crop conditions and the dollar's depreciation. That increase can't realistically be built into expectations for this year and next.

If we avoid pushing up our costs it should create the conditions for a real improvement in the CPI in 1979 and later years. The inflationary effects of dollar depreciation will be smaller this year. The problem of food-price increases should be less. Unit labour costs have been moderating. The opportunity now exists for *real* incomes to rise because of lower inflation.

The business sector has a critical role to play in the process. Import prices have risen because of the dollar's depreciation. That means less competition for many Canadian producers—who now have a chance to raise their own prices. We will all be better off if they avoid that temptation, and instead use their new competitive edge to win markets away from those imports. That will mean less pressure on prices and more jobs in Canada.

Profits in many cases have also been enlarged by depreciation of the dollar. How will those profits be used? Those now maneuvering to claim a larger share of that pie—employees, managers, shareholders, suppliers—should understand fully and clearly the need to reinvest those profits in Canada to modernize and expand plant and equipment, and create more jobs.

There is no room in the present situation, either, for governments to relax. The monetary and fiscal position of government must continue to support a reduction in inflationary pressures. And the many individual decisions that governments make—with public sector prices and charges, labour negotiations and the great range of regulatory changes and policy decisions—all should form a coherent strategy to help bring down inflation.

In pursuit of timely data on price increases...

Following is the text of a letter addressed to the firms listed opposite.

At their Conference on the Economy last February, the Federal and Provincial First Ministers asked the Economic Council of Canada to undertake the responsibility for analyzing price and cost developments for a limited post-controls period. The Centre for the Study of Inflation and Productivity has been established to fulfill this request.

With the end of the mandatory controls program, a large measure of the responsibility for controlling inflationary pressures has shifted back to the Canadian public—to the individual decisions of governments, business, labour and other groups. The role of the Centre is to monitor and analyze prices and incomes and to inform the public of developments which appear to threaten our ability to reduce inflation. The Centre also has the responsibility to investigate structural problems which may add to costs and prices or make the economy less able to cope with inflationary shocks. In addition, the Centre has a research and education role in the improvement of productivity.

Unlike the Anti-Inflation Board, the Centre has no power to require that data or other information be provided, nor can it intervene directly in income and price decisions. Its function is to act as an early warning system for public benefit, and to do that we will be relying mainly on public information, including published statistics and newspaper and trade literature reports of individual price and income decisions. The Centre is hopeful, however, that this information base can be broadened with the co-operation of the Canadian business community. Our objective is to ensure a timely and accurate review of price and cost developments and their causes and consequences. It is important, we feel, that the public understand not only that a significant development has occurred, but also why and with what implications for the economy.

On this basis, the Centre is asking your firm and a number of other large firms to inform us of major price changes, together with any background information you can provide that would be of assistance in assessing

their significance and impact. We would also be interested in hearing of major price changes affecting the materials, supplies and services which you purchase.

The information we seek is for price changes of some significance (say above 3% cumulatively on an annual basis) for products, product lines or services which form an important portion of your sales, which are important raw materials, or which form a significant portion of consumers' budgets. We are hereby inviting your suggestions on how the information relating to your company might best be provided. It is not our intention to impose a heavy paper burden. Indeed, the Centre does not have the resources to cope with a great volume of paper. The kind of information we seek is general or summary, not exhaustive and detailed. It is to assist us in identifying trends on a timely basis and not to compile a massive data base or duplicate the work of Statistics Canada.

Some companies may find that the criteria and procedures established to meet the AIB's requirements for price pre-notification could be useful, although it should be emphasized that we do not require nor indeed seek advance information. It may be that much of the data could be provided through existing mechanisms such as photocopying price announcements to customers or price reports to Statistics Canada, if such information is sufficiently summarized. Wherever possible, it would be most useful if you could provide an historical perspective on price movements as well as descriptive material which would assist us in placing these price changes in an appropriate context.

We would assume that the data you provide could be made public unless you advise otherwise. We will respect the confidential limitations you place on such data, and would not use publicly any information provided on a confidential basis that would permit your firm to be identified.

In addition to specific price information, it is anticipated that members of our staff will wish from time to time to contact your firm to obtain further background information on particular

price increases or viewpoints that would enhance our knowledge of the problems and prospects facing your industry. It would be helpful to us if you would identify a contact person for this purpose. We would hope we can count on your support in these endeavours as well, and indeed we will welcome any unsolicited perspectives you may wish to forward to us.

It should be explained carefully why we are seeking your co-operation. With the termination of formal controls, the decision has been made by governments that reasonable wage and price performance should be pursued as a matter of common sense and realism through the normal working of market forces, but that the operation of the market can be facilitated by a greater public awareness and understanding of actual developments. It is the Centre's role to promote this greater comprehension, and to help ensure that wage and price decisions yet to be made are undertaken with as complete a knowledge of the economic environment as possible. Thus, in our request to you we are seeking to develop an information system to keep us current on price changes as they occur, a system that will close many of the gaps and time lags in much of the available data, and will enable us to comment accurately, fairly, and promptly.

The Centre looks forward to hearing from you concerning the manner in which you will be able to co-operate and the form in which our requested information could be most usefully provided. Some firms will wish to discuss with us the most convenient way in which our request can be met, particularly in those cases where there is a large number of products or product lines, where prices are volatile, or where some aspects of pricing behaviour, e.g. discount policy, may make list prices a less useful indicator. We will be pleased to provide any further clarification of our requirements and intentions.

Yours sincerely,

Robert C. Douglas
Executive Director

...the Centre has written to these firms:

A&W Food Services of Canada	Falconbridge Nickel Mines	Nova Scotia Power
Abitibi Paper	Firestone Canada	Ontario Hydro
Agra Industries	Ford Motor of Canada	Outboard Marine of Canada
Air Canada	Four Seasons Hotels	PPG Industries Canada
Alberta Power	GTE Sylvania Canada	Pacific Petroleum
Alberta Government Telephones	GWG	Pacific Western Airlines
Alcan Aluminium	General Foods	Pepsi-Cola Canada
Algoma Steel	General Motors of Canada	Petrofina Canada
Allstate Insurance of Canada	Genstar	Petrosar
American Motors (Canada)	Golden Eagle Canada	Philips Electronics Canada
Amoco Canada Petroleum	B.F. Goodrich Canada	Pilkington Brothers Canada
Atco Industries	Goodyear Canada	Polysar
Avis Transport of Canada	Great-West Life Assurance	Procter & Gamble of Canada
B.P. Canada	Greyhound Lines of Canada	Quaker Oats of Canada
Bank of Montreal	Gulf Canada	Quebecair
Bank of Nova Scotia	Harding Carpets	RCA
Banque Canadienne Nationale	Hawker Siddeley Canada	Redpath Industries
Bell Canada	H.J. Heinz of Canada	Reed Paper
Bombardier	Hertz Canada	Reynolds Aluminum of Canada
British Columbia Forest Products	Honeywell	Rio Algom
British Columbia Hydro & Power Authority	Hudson Bay Mining & Smelting	Robin Hood Multifoods
British Columbia Packers	Husky Oil	Rothmans of Pall Mall Canada
British Columbia Sugar Refining	Hydro-Québec	Royal Bank of Canada
British Columbia Telephone	IBM Canada	Royal Insurance of Canada
Bristol-Myers Canada	Imasco	Royal Trust
Budget Rent-A-Car of Canada	Imperial Oil	Saskatchewan Telecommunications
Burns Foods	Inco	Saskatchewan Power Corporation
CKR	Ingersoll-Rand Canada	Schneider
Calgary Power	Intercontinental Packers	Scott Paper
Canada Cement Lafarge	International Harvester of Canada	Scott's Restaurants
Canada Packers	Interprovincial Steel and Pipe	Seagram
Canada Permanent Mortgage	Irving Oil	Shell Canada
Canada Trustco Mortgage	Kellogg Salada Canada	Sheraton
Canadian Admiral	Kimberley-Clark of Canada	Silverwood Industries
Canadian Appliance Manufacturing	Kodak Canada	Skyline Hotels
Canadian General Electric	Kraft	Standard Brands
Canadian Gypsum	John Labatt	Stanfield's
Canadian Imperial Bank of Commerce	Lever Brothers	Steel Company of Canada
Canadian Industries	Levi Strauss of Canada	Sun Life Assurance of Canada
Canadian International Paper	London Life Insurance	Sun Oil
Canadian Motor Industries Holdings	R.J.R. MacDonald Inc.	Swift Canadian
Canadian National	MacMillan Bloedel	Texaco Canada
Canadian Pacific	Manitoba Hydro-Electric	3M Canada
Canon	Manitoba Telephone	Tilden
Carling O'Keefe	Manufacturers Life Insurance	Toronto-Dominion Bank
Celanese Canada	Maple Leaf Mills	Transair
Chrysler Canada	Maritime Electric	TransCanada Pipelines
Coca-Cola	Maritime Telegraph & Telephone	Travelers of Canada
Cominco	Massey-Ferguson	Union Carbide Canada
Commonwealth Holiday Inns of Canada	McCain Foods	Union Gas
Consolidated-Bathurst	McDonald's Restaurants of Canada	Volkswagen Canada
Consolidated Foods Corp. Canada	Mobil Oil Canada	Voyageur
Consumers Gas	Molson Companies	Wabasso
Continental Group of Canada	Monsanto Canada	Hiram Walker-Goodeham & Worts
Co-operators Insurance	Moore	Weldwood of Canada
Crown Zellerbach Canada	National Sea Products	Westcoast Transmission
John Deere	Nestlé (Canada)	Western International Hotels
Dominion Bridge	New Brunswick Electric Power Commission	Westinghouse Canada
Dominion Dairies	New Brunswick Telephone	White Motor of Canada
Dominion Foundries & Steel	Newfoundland & Labrador Hydro	Xerox of Canada
Dominion Textile	Nissan Automobile (Canada)	
Domtar	Noranda Mines	
Dow Chemical of Canada	Norcen Energy Resources	
DuPont of Canada	Nordair	
Eastern Provincial Airways	Northern Telecom	

The upturn in wages—a clear signal of danger

Data on major post-controls wage settlements reported up to the end of November 1978 indicate a distinct upward trend.

In its Report to the First Ministers' Conference on the Economy last November, the Centre said that the "downward trend that had been observed throughout the controls program may have bottomed out" and that the possibility of an upward trend was indicated. *This trend is now confirmed.*

Evidence of the renewed pressure emerges from the Centre's analysis of preliminary data reported in the October and November issues of *Collective Bargaining Review* published by Labour Canada.

In summary, the effective annual rate of increase in the *lowest* wage rates published there—including COLA-clause payments estimated at an annual 8% rate of CPI increase—is in the order of 8.8%. The average rate of increase had been 8.4% in the third quarter of 1978.

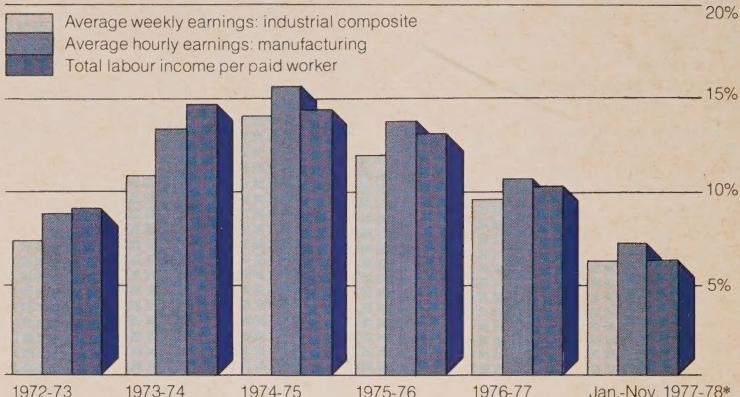
There have not yet been enough major post-controls settlements with high rates of increase to drive up the Canadian cost structure irreversibly; the largest part of the post-controls bargaining is either now under way, or will begin during the next several months.

There is still a reasonable chance of avoiding a post-controls "wage-price" bubble. However, if this upward wage trend continues, the chance will be lost.

Undoubtedly last year's relatively high rate of CPI increases had a bearing on the wage settlements that were reported in October and November, in particular. As reported elsewhere in this issue of *The Monitor* the Centre believes that the rate of CPI increase will moderate in the coming months. This should be taken prominently into account in current and forthcoming contract negotiations.

The 1974-75 round of compensation increases in excess of productivity gains contributed greatly to a counter-productive increase in the country's

Average Earnings and Labour Income
Year-to-year changes



*Based on monthly seasonally adjusted data
cost structure, that weakened our international competitiveness, that led to the depreciation of the dollar, that contributed to inflation, that resulted in all of us taking a real loss in the purchasing power of our incomes.

Any attempt now to recoup that loss through an acceleration of nominal wages will merely heighten the cost and price pressures in the Canadian economy, and start the whole process over again. Any short-term gains that

people think they are getting will prove to be short-term and illusory over the longer run.

The best way out of this situation is a concerted, collective effort to restrain costs, stimulate growth, and get the slack out of our economy. This will permit us to improve productivity so that we can earn higher *real* income gains without having them wiped out by another wage-price spiral.

Average annual wage increases in major post-controls settlements, 1978
(Bargaining units of 500 + employees)

	Second Quarter	Third Quarter	October & November
No. of settlements	53	123	94
No. of employees	109,905	195,810	179,655
Employees with COLA	47.1%	25.6%	28.0%
Effective Increases			(Per Cent)
At 6% CPI Increase			
Settlements without COLA	7.3	8.0	8.7
Settlements with COLA	8.0	8.2	8.1
All Settlements	7.6	8.0	8.5
At 8% CPI Increase			
Settlements without COLA	7.3	8.0	8.7
Settlements with COLA	9.0	9.5	9.3
All Settlements	8.1	8.4	8.8

Settling out of controls

As part of its post-controls monitoring, the Centre has reviewed a large number of wage settlements. Following is a summary of major developments to date.

Construction: Restraint

Since wage controls have been lifted, settlements in the Canadian construction industry have been moderate. The industry association, the construction unions, and their individual members, are to be commended.

Hourly compensation increases negotiated in three trades—for carpenters, electricians, and labourers—are generally well below 8% a year on two-year contracts covering 1978 and 1979.

That would have been hard to predict. For many years there were above-average wage increases in the construction industry in Canada: average gains of 12.3% a year in 1972-73, and a recent high of 18% in 1975. In many cases these were two-year contracts that were signed just ahead of the October 1975 start of the AIB. In effect, then, much of the construction industry compensation did not come under controls until 1977.

Whence came the new moderation?

1. These are not bullish days in the construction labour market; demand for most types of workers in most places is not strong.
2. There is a threat of increased competition from non-union construction firms.
3. On both sides of the construction industry there is generally reported to be a pretty good understanding of the current problems of the Canadian economy, and of the need for restraint.

Reasons aside, the wage negotiation pattern that has emerged in construction in recent months is a positive development. In an industry that now accounts for about 14% of GNP and about 6.5% of all jobs in Canada, moderation is a necessary ingredient for successful transition out of controls.

The test for the industry now is whether it will maintain this attitude. This spring, a major round of bargaining begins for the construction trades in Quebec. And the General Labour

and Trades Group employed by the federal government will be negotiating a new contract soon.

The moderation must continue.

Teachers: Moderation

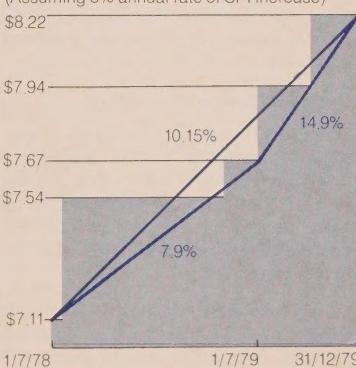
The Centre has analyzed 27 major post-controls settlements covering about 46,000 teachers and has found,

How we measure wage increases

The Centre has adopted a well established method for analyzing wage increases. Put simply, the wage rate that will be in effect at the end of the new contract is compared with the wage rate at the end of the old contract, and the annual percentage change is computed. Where the contract contains a cost-of-living allowance (COLA) clause, the Centre estimates the wage increase that would be generated by this feature, assuming a certain rate of inflation.

This is the method the Centre has used in compiling its trend data on wage changes as well as analysing individual settlements such as the ones noted above, and the earlier settlements the Centre has commented on: the Steelworkers contracts with Stelco and the Iron Ore Company of Canada, and the contract between the Letter Carriers' Union of Canada and the federal government.

LCUC Wage Increase
(Assuming 8% annual rate of CPI increase)



For example, at the end of the old contract between the LCUC and the federal government, the wage for the

in most cases, reasonable moderation in wage increases. Counting COLA clauses and assuming, for example, an annual CPI increase of 8% over the life of the new contracts, the average annual gain in wage rates would be just under 7%.

This is what one would expect; with declining demand for teachers,

major job classification was \$6.65 per hour plus a COLA payment of \$0.46 per hour, giving a total of \$7.11. Under their new 18-month contract, there will be two general wage increases yielding \$0.70 per hour, plus—if there is an 8% annual increase in the CPI—an additional \$0.41 per hour generated by a COLA clause, giving a total at the end of the new contract of \$8.22. The *annual* rate of increase can therefore be calculated as 10.15%, as shown on the chart.

In our view, this approach provides the best long-term perspective on the impact of the contract changes. Essentially the same approach was used by the Anti-Inflation Board for three years, and the United States guideline program has built this approach into its wage calculations.

It has been suggested that a more appropriate way of calculating the impact of a contract change is to compute the increase in the expenditures on wages that will occur during the period of the contract. This produces a percentage increase in the total cost of the wage bill for the period, essential for budgeting, but it does not in all cases provide a good measure of the long-term impact on the level of costs. Wage increases that occur towards the end of a new contract may generate very little cost *during* the contract, but do create long-term costs and form the base for future increases.

The Centre has therefore adopted the end-of-contract over end-of contract approach to measure wage increases. This method will be used both in the evaluation of individual contracts, and in the generation of aggregate statistics covering major wage settlements.

they should be settling for wage increases that on average are below the overall average for the whole economy.

Two teachers' settlements that appeared rather high were questioned by the Centre:

One settlement in Ontario between the Lambton County Board of Education and 700 elementary school teachers included increases which in some categories were in the order of 11%. In this case, the settlement—resulting from an arbitration award—was based on the need to equalize the salaries of elementary school teachers with the equivalent classifications in the secondary school system in Lambton County.

A recent settlement in Ontario for elementary school teachers employed by the Carleton Board of Education resulted in a two-year contract with increases in the order of 8% a year. That Board is recognized as having among the highest teacher salaries in the province. But again the latest settlement took into account a disparity between elementary and secondary school teachers with similar qualifications.

Bell Canada: Catch-up

All contracts are born with extenuating circumstances. Some are more extenuating than others.

The Canadian Telephone Employees Association has signed with Bell Canada one-year agreements ending next November 30 that provide varying dollars-per-week increases for various categories of employees, but generally provide an increase of about 8.5% a year to 500 sales employees and 12.5% a year to 15,000 clerical employees.

The Centre's main concern is with the high rate for the clerical group. Increases that high, at this time, will seriously complicate the country's collective effort towards avoiding a renewed burst of domestically generated high price and wage increases.

In planning its compensation, Bell Canada makes a detailed review of wages paid for similar employees in a large number of locations. In this case, the company's analysis led it to the conclusion that its clerical workers had fallen behind the salaries paid by firms competing for the same kind of workers, and management felt that staff turnover and low morale were becoming

significant cost factors. Therefore it decided that an above-average increase in salaries was necessary.

The Centre agrees that somewhat high or low settlements may be needed to cope with wage distortions in some circumstances. But they should be seen as clear exceptions, not indicators of a trend. Obviously, a trend of 12.5% wage settlements would result in sharp acceleration of inflation in Canada.

Our present economic circumstances indicate the need for gradual elimination of distortions in the wage structure. While a relatively high settlement may have been required for the Bell clerical workers, the Centre is of the view that a more gradual correction would have been more compatible with a successful transition out of mandatory controls.

The Food Industry

The Centre has reviewed 28 major post-controls wage settlements covering about 62,000 employees of food processing companies and food retailers.

For each settlement the Centre has calculated the annual rate of increase for the lowest-paid classification listed in the *Collective Bargaining Review*. If that classification has a range of salaries, the Centre calculates the percentage increases at both ends of the salary range.

This may overestimate the average salary increase for the entire bargaining unit. For example, a \$100 increase is a higher percentage increase on a \$6,000 salary than on a \$10,000 salary. However, this upward bias is typically offset by the relative value of fringe benefits and, for example, reduced hours of work.

Food Processors: Average

In the food processing industry, 17 settlements covering 21,000 employees provide increases of 8.8% a year for the lowest classifications, but about half of these people are employees of the meat-packing industry where the increases average 8.9%.

Some higher settlements stand out in this analysis: 10.8% in a contract covering 500 employees of Lowney's Ltd. in Sherbrooke; 9.8% in a settlement between Alpha Milk Co. and 550 employees in Calgary; and—counting the effect of a COLA clause and as-

suming 8% inflation—an increase of 12.3% in a contract between Heinz and 1,165 employees in Leamington, Ontario.

Conversely, these lower settlements should be noted: 7.9% for about 1,000 Coca-Cola employees in Ontario; and 8.3% for 630 Kellogg Salada employees in London, Ontario.

Supermarkets: High

In 11 major settlements covering 41,000 supermarket employees, there is an average increase of 11.1% a year at the bottom of the lowest published salary range, and 10.4% at the top of the range.

Settlements below these averages included increases of between 5% and 8% for 915 employees of Dominion Stores and Loblaws in Winnipeg, and roughly 8% to 9% for 1,800 employees of Safeway, also in Winnipeg.

Considerably above the group averages was the 13.6% settlement between Loblaws and 6,000 employees in Ontario. In Montreal, Steinberg's settled with 6,470 employees for increases of 14.4% at the bottom of the lowest salary range and 10% at the top. Dominion Stores signed with 10,300 Ontario workers for a 10.9% increase in the lowest published classification.

While there may be particular circumstances that led to a relatively high settlement in any one of these cases, the Centre views the general trend in the industry as a very serious development.

The settlements for the retail stores in particular could seriously complicate the objective of slowing the rate of growth of retail food prices.

Such high wage settlements do not automatically imply corresponding food price increases, but the danger is there. The key is whether or not the wage advances are backed up by satisfactory productivity improvements in retail food operations. The onus is on both management and labour in this sector to ensure that efficiency gains do justify what appear to be very generous wage settlements. If they do not, there will be increased upward pressure on food prices at a time when the moderation of food price increases is essential.

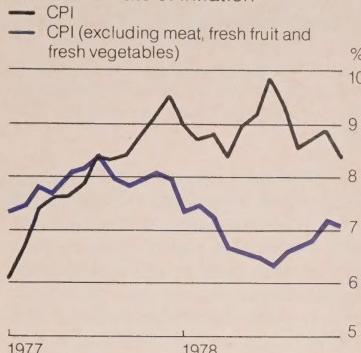
Basic inflation—no better, no worse

Price inflation in Canada, as measured by the All-Items Consumer Price Index (CPI), accelerated to an annual average of 9% in 1978 from a rate of 8% in 1977 and 7.5% in 1976. The CPI peak was in July at 9.8%; the rate of increase declined to 8.4% in December. The 9% average increase for 1978 would have been somewhat worse except for the temporary retail sales tax reductions in most provinces for six months of the year.

The Centre's measure of the trend in the underlying rate of inflation, which excludes the erratic price movements of meat, fresh fruit and fresh vegetables from the CPI, fell in 1978 to 6.9% from a rate of 7.9% in 1977 and 8.2% in 1976. The Centre excludes these three items, which make up only about 7% of the weight of the CPI and about one-third of the food component, because their prices move both up and down erratically in the short run, though they move closely in line with other prices over longer periods of time. The Centre believes that the concept of the underlying rate of inflation

is useful in helping to determine the amount of inflation embedded in the economy's cost structure.

The Basic Rate of Inflation



The decline in basic inflationary pressure occurred largely because increases in the cost of labour and materials continued to moderate and profits on domestic sales remained at or below historical levels. A large source of continuing upward pressure, however, was exerted from the depreciation of the

Canadian dollar. As with the CPI, the underlying inflation picture was improved somewhat in 1978 by the temporary sales tax reductions.

From 1976 to 1978 the CPI and the underlying rate of inflation moved in different directions, crossing in 1977, as the price movements of meat and fresh fruit and vegetables turned around from an absolute decline of 0.2% in 1976 to an astonishing increase of over 30% last year. As a result, the CPI tended to underestimate the amount of underlying inflationary pressure in the economy in 1976 and may have led Canadians to be too optimistic about our inflation prospects. Similarly, the CPI is currently overstating the amount of underlying inflationary pressure.

A disturbing feature of the underlying rate of inflation during 1978, however, was its near constancy around 7%, after declines from 1975 through 1977. Continued efforts to restrain cost increases will be necessary if we are to see any major improvement.

Prospects for food prices

The strong upward pressure on food prices which had been evident during the first half of 1978 moderated after July. The food component of the Consumer Price Index in fact declined during August and September when supplies of relatively cheap local produce were at their peak. A rising trend was re-established in October, but by year-end the level of the food index was still 1.7% lower than the high point reached five months earlier.

Within the total, the cost of food consumed outside the home continued to rise fairly strongly—by a further 5% between July and December. Thus the moderation was particularly marked for the important element of food for home consumption. The level for December was up 13.5% from the previous December, compared with the 23% year-over-year change which had prevailed in July 1978.

While the upward trend in food prices is expected to continue during

1979, the average rise for the year as a whole should be much lower than was the case for 1978. The consensus of forecasts presented at the recent government-sponsored Agricultural Outlook Conference, for example, called for the food price component of the CPI to advance by 8% to 11% for the year as a whole. The higher end of the range reflected relatively more pessimistic assumptions about further dollar depreciation and crop conditions.

It is a fact that some additional upward pressure will be exerted early this year, reflecting the effect of the elimination of federal government subsidies on wheat prices, increases in industrial milk prices, and the aftermath of some recent crop damage in California. It will be recalled, however, that the early part of 1978 was influenced by severe winter conditions in the southern United States. We hope that won't happen again. It is also worth noting that consumers appear to have shifted their purchases of food away

from some of the higher priced items such as beef towards less costly products such as pork and poultry, lessening the cumulative impact of rising food costs on consumer budgets.



Electricity Rates:

Turn on now—Pay later?

All Canadians face the prospect of rising electricity rates in the months and years ahead.

That's unhappy news for consumers on two counts:

1. The cost of running a household will go up. Electricity now accounts for 5.4% of housing costs.
2. The cost of consumer goods and services in which electricity is a substantial input will also tend to rise. Electricity accounts for about 1.6% of the price of food and 1.2% of clothing, for example.

More troublesome is the threat to our underlying cost structure. Almost half the electricity sold in Canada goes into industry, and it makes up about 7.4% of the cost of producing chemicals, 7.5% of the cost of cement, 5.6% in the case of pulp and paper, and 5.4%

of the cost of producing aluminum. These estimates include only the cost of purchased electricity; some industries produce significant amounts for their own power needs. For example, the total electricity used in aluminum production accounts for roughly 35% of costs.

Electricity also accounts for about 2.5% of our export costs. Some of the most intensive users of electrical energy are our big export earners—such as newsprint, lumber and timber, pulp, nickel, aluminum, iron ores, and motor vehicle parts. Thus higher power rates will work against our international cost competitiveness.

Why the increases?

Through the first half of the 1970s electricity prices across Canada remained relatively stable. Then they began to rise sharply. The electricity component of the Consumer Price Index went up 16% in 1976, a further 17% in 1977, and 8% last year.

These price rises reflect cost pressures that have varied across the country in amount and type. In some provinces a major factor has been the rising cost of fuel, mainly oil and coal, for thermal generating plants.

Nova Scotia is a striking case. Over the past seven years its residential, commercial and industrial power rates have more than doubled. Relying as it does on thermal plants for over 80% of its generating capacity, Nova Scotia saw the price of heavy fuel oil quadruple between 1973 and 1977, while in the 1974-78 period the price of coal almost tripled.

Even Quebec and British Columbia—where hydroelectric power plants predominate—have introduced sharp rate increases. Of the three largest provinces, the highest increases in industrial rates in the 1970s have been in Ontario.

Even though today's electricity rates may seem high to consumers they are less than they would otherwise be, because of federal and provincial sub-

sides. Nova Scotia consumers, for example, are protected from even higher rates by a provincial Energy Assistance Program totalling \$13.5 million in the current fiscal year. And everywhere that electricity is generated in oil-burning plants, consumers are being protected by the federal-provincial policy of keeping the Canadian price of oil below the world level. (See page 16.) Ultimately this protection will give way as the Canadian price of oil rises to world levels.

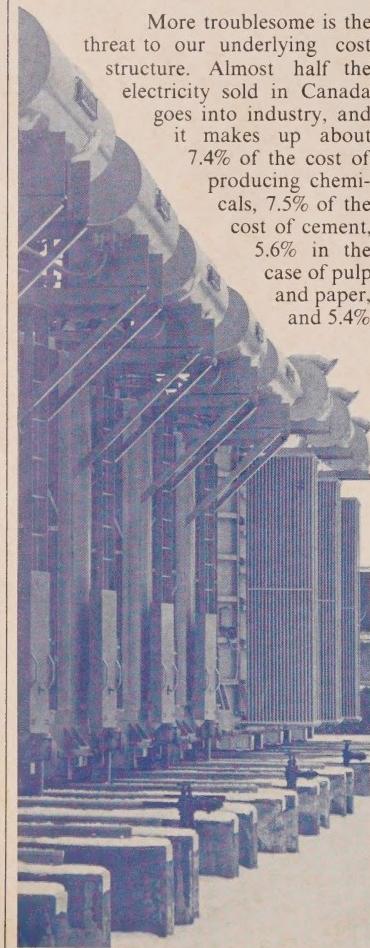
The generation gap

The other sources of price pressure recently and in the months and years ahead stem from the rising capital costs of providing each additional unit of generating capacity and the growing burden of servicing debt at high interest rates.

The increasing capital costs of electric power generation have resulted from a number of factors: the remoteness of new hydro generation sites, the development of nuclear power facilities with their high initial cost, and increased awareness of environmental and safety concerns.

Through the first half of the 1970s the electric utilities invested \$15.1 billion (in 1975 dollars) in new facilities to meet an annual increase of 7% in consumer demand for electricity. The demand growth has since slowed to about 5.5% a year, but even at this rate it is estimated that total generating capacity by 1990 will have to be more than double the 1975 level. This increased capacity will provide for increasing reliance on electricity in meeting new energy requirements, as electricity's share of total energy demand rises from an estimated 33% in 1975 to 40% by 1990. That expansion will cost around \$90 billion (again, in 1975 dollars) or about \$6 billion a year on average—double the annual rate of expenditure through the early 1970s.

To do this, the utilities will obviously need a great deal of money—money generated internally, or borrowed from Canadian sources or



abroad. The important factor for our immediate inflation prospects is how much of the cost of expansion will be prepaid by raising electricity rates now to create more profits for reinvestment, and how much of the cost will be spread out over the life of the project by borrowing.



Centre for the
Study of Inflation
and Productivity
Economic Council
of Canada

Centre d'étude
de l'inflation et
de la productivité
Conseil économique
du Canada

Please add the following name to your mailing list:
Veuillez ajouter le nom suivant à votre liste de diffusion:

The Monitor
Le Moniteur

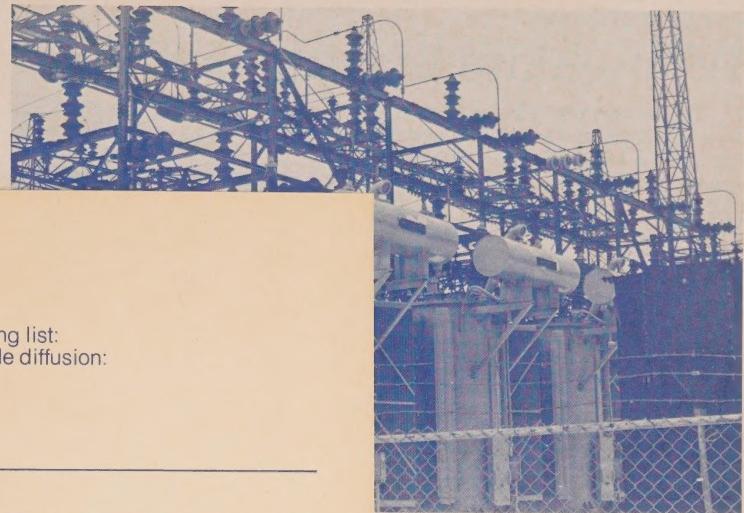
Name
Nom _____

Street
Rue _____

City
Ville _____

Prov.
Prov. _____ Postal Code
Code postal _____

Have we addressed you correctly?
Are you getting the publication in
the language of your choice? If not,
please correct the mailing label on
the back of the magazine, clip it, and
mail it to the address on the reverse
of this card.



Si votre adresse est inexacte, si vous
désirez recevoir cette publication
dans l'autre langue, informez-nous
en. Pour cela, apportez les correc-
tions nécessaires sur l'étiquette
portant votre adresse et retournez
nous là à l'adresse indiquée au verso.

In foreign currencies were translated
into Canadian dollars the utility's total
Canadian dollar liability would have
increased by \$968 million as of the end
of September 1978. Of course, the
lower interest rates available abroad at
the time of borrowing provided interest
rate savings which gave a measure of
protection against exchange-rate
movements. Moreover, the additional
costs may be temporary; if Canada
succeeds in reducing inflation, the
Canadian dollar will likely rise again.

Hydro-Quebec is planning the ex-
penditure of \$14.3 billion on new facilities
through the 1978-82 period to meet
a goal of greater electrification in the
province and, for some time at least, to
allow for exports to other provinces and the United States. It has decided to raise a higher portion of those funds through internal sources so as not to threaten its credit rating and invite higher interest rates. So the utility recently announced an increase in the proportion of its capital expenditures covered by internal funds from 21.3%

to 20-25% over the next five years. In Nova Scotia, internal funds accounted for less than 15% of the Power Corporation's capital financing in the mid-1970s, but the utility is attempting to increase the proportion to 25% in future years.

Too much, too soon?

In the Centre's view, a delicate balance must be struck between the need for price restraint wherever possible in the economy, and the perceived need of the electric utilities to raise more money by raising rates now.

In addition to rising thermal generating costs brought on by fuel price hikes, and the increasing burden of interest payments on outstanding debt, utilities are faced with substantially higher capital costs to install new power capacity. The difficult, but critical, question is how far and how quickly electricity prices must be adjusted to reflect these increased costs.

Greater reliance on debt financing would allow a more gradual adjustment of rates. But, at a time of rising prices for alternate energy sources, the dilemma is that slower rate increases encourage an even greater demand for electrical capacity as buyers switch from the relatively more expensive fuels. Although electricity rates have nearly doubled since 1971, the price of fuel oil to the consumer has almost tripled over the same period.

Furthermore, there is apparently a feeling in financial markets and among the utilities' advisers that reliance on debt financing must be reduced if credit ratings are to be protected and interest-rate increases minimized. On this point it should be noted that utility debt is generally guaranteed by the respective provincial government, and a major increase in borrowing may force provinces to ration available capital among competing investment programs, or pay higher interest rates which would have to be paid by tax-payers or consumers.

Nevertheless, it is the Centre's view that the utilities and the provinces should weigh the alternatives very carefully. It may be possible and desirable to move more slowly towards any targets for increased emphasis on internally generated funds. Capital investment planning must take full account of the need to minimize the adverse effects of rising electricity costs on all parts of the Canadian economy.

Electricity Rates:

Turn on now – Pay later?

All Canadians face the prospect of rising electricity rates in the months and years ahead.

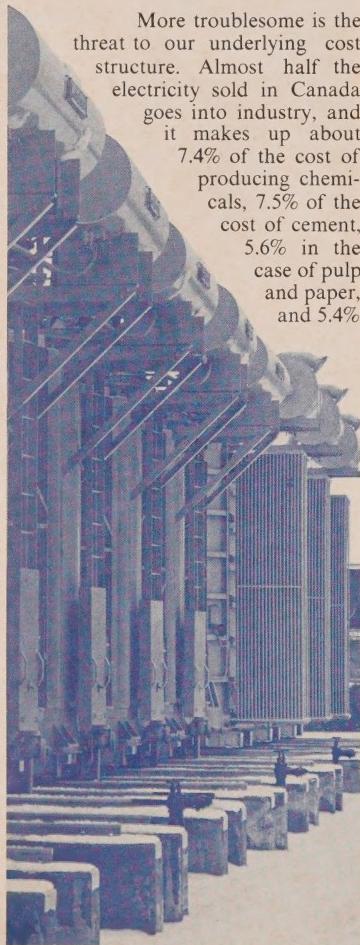
That's unhappy news for consumers on two counts:

1. The cost of running a household will go up. Electricity now accounts for 5.4% of housing costs.
2. The cost of consumer goods and services in which electricity is a substantial input will also tend to rise. Electricity accounts for about 1.6% of the price of food and 1.2% of clothing, for example.

More troublesome is the threat to our underlying cost structure. Almost half the electricity sold in Canada goes into industry, and it makes up about 7.4% of the cost of producing chemicals, 7.5% of the cost of cement, 5.6% in the case of pulp and paper, and 5.4%

of the cost of producing aluminum. These estimates include only the cost of purchased electricity; some indus-

sies. Nova Scotia consumers, for example, are protected from even higher rates by a provincial Energy Assistance



try in amount and type. In some provinces a major factor has been the rising cost of fuel, mainly oil and coal, for thermal generating plants.

Nova Scotia is a striking case. Over the past seven years its residential, commercial and industrial power rates have more than doubled. Relying as it does on thermal plants for over 80% of its generating capacity, Nova Scotia saw the price of heavy fuel oil quadruple between 1973 and 1977, while in the 1974-78 period the price of coal almost tripled.

Even Quebec and British Columbia—where hydroelectric power plants predominate—have introduced sharp rate increases. Of the three largest provinces, the highest increases in industrial rates in the 1970s have been in Ontario.

Even though today's electricity rates may seem high to consumers they are less than they would otherwise be, because of federal and provincial sub-

sidies and safety concerns.

Through the first half of the 1970s the electric utilities invested \$15.1 billion (in 1975 dollars) in new facilities to meet an annual increase of 7% in consumer demand for electricity. The demand growth has since slowed to about 5.5% a year, but even at this rate it is estimated that total generating capacity by 1990 will have to be more than double the 1975 level. This increased capacity will provide for increasing reliance on electricity in meeting new energy requirements, as electricity's share of total energy demand rises from an estimated 33% in 1975 to 40% by 1990. That expansion will cost around \$90 billion (again, in 1975 dollars) or about \$6 billion a year on average—double the annual rate of expenditure through the early 1970s.

To do this, the utilities will obviously need a great deal of money—money generated internally, or borrowed from Canadian sources or

abroad. The important factor for our immediate inflation prospects is how much of the cost of expansion will be prepaid by raising electricity rates now to create more profits for reinvestment, and how much of the cost will be spread out over the life of the project by borrowing.

Through the first half of the 1970s the utilities doubled their internally generated funds (net income and depreciation) and quadrupled their borrowings, from \$1.2 billion in 1971 to \$4.7 billion in 1976. By 1977 the utilities' long-term debt stood at \$28 billion, and an increasing share of their sales revenue has gone to servicing that debt. Whereas their total operating costs rose 110% in the 1971-76 period, their interest charges went up 145%, because of higher levels of borrowing and higher interest rates. For example, Hydro-Quebec's interest payments on long-term debt nearly tripled over the last four years, reaching \$742 million in the year ending September 1978.

Since a large portion of utility borrowing is denominated in foreign currencies, the depreciation of the Canadian dollar has added to debt-servicing costs in the form of both higher interest costs and an enlarged liability for repayment of principal. In Hydro-Quebec's case, if its long-term debt payable in foreign currencies were translated into Canadian dollars the utility's total Canadian dollar liability would have increased by \$968 million as of the end of September 1978. Of course, the lower interest rates available abroad at the time of borrowing provided interest rate savings which gave a measure of protection against exchange-rate movements. Moreover, the additional costs may be temporary; if Canada succeeds in reducing inflation, the Canadian dollar will likely rise again.

Hydro-Quebec is planning the expenditure of \$14.3 billion on new facilities through the 1978-82 period to meet a goal of greater electrification in the province and, for some time at least, to allow for exports to other provinces and the United States. It has decided to raise a higher portion of those funds through internal sources so as not to threaten its credit rating and invite higher interest rates. So the utility recently announced an increase in the proportion of its capital expenditures covered by internal funds from 21.3%



in 1977 to 30.1% by 1981, requiring a string of rate increases—18.7% in 1978, 13.7% this year, 13.3% in 1980, and another 10.6% in 1981.

In recent bond issues, several other utilities have announced a similar intention to generate a higher proportion of capital from internal sources rather than external borrowing. Ontario Hydro, for example, expects to increase its self-financing ratio from an average of 19% in the period 1973-77 to 20%-25% over the next five years. In Nova Scotia, internal funds accounted for less than 15% of the Power Corporation's capital financing in the mid-1970s, but the utility is attempting to increase the proportion to 25% in future years.

Too much, too soon?

In the Centre's view, a delicate balance must be struck between the need for price restraint wherever possible in the economy, and the perceived need of the electric utilities to raise more money by raising rates now.

In addition to rising thermal generating costs brought on by fuel price hikes, and the increasing burden of interest payments on outstanding debt, utilities are faced with substantially higher capital costs to install new power capacity. The difficult, but critical, question is how far and how quickly electricity prices must be adjusted to reflect these increased costs.

Greater reliance on debt financing would allow a more gradual adjustment of rates. But, at a time of rising prices for alternate energy sources, the dilemma is that slower rate increases encourage an even greater demand for electrical capacity as buyers switch from the relatively more expensive fuels. Although electricity rates have nearly doubled since 1971, the price of fuel oil to the consumer has almost tripled over the same period.

Furthermore, there is apparently a feeling in financial markets and among the utilities' advisers that reliance on debt financing must be reduced if credit ratings are to be protected and interest-rate increases minimized. On this point it should be noted that utility debt is generally guaranteed by the respective provincial government, and a major increase in borrowing may force provinces to ration available capital among competing investment programs, or pay higher interest rates which would have to be paid by tax-payers or consumers.

Nevertheless, it is the Centre's view that the utilities and the provinces should weigh the alternatives very carefully. It may be possible and desirable to move more slowly towards any targets for increased emphasis on internally generated funds. Capital investment planning must take full account of the need to minimize the adverse effects of rising electricity costs on all parts of the Canadian economy.

The Cost of Credit:

What we lose (and gain) from higher interest rates

Higher interest rates will bring about a decline in the rate of inflation this year of about one-half of a percentage point and will reduce the rate of growth in the country's total output of goods and services (the gross national product) by about three-quarters of a percentage point. We expect that most of the effect on output will be felt during 1979. It will take longer for the slowdown to work itself through to prices, so the impact of present high interest rates will continue to dampen the rate of inflation well into 1980.

The pattern of interest rates in Canada is influenced by the Bank of Canada through the bank rate, which technically is the rate of interest it charges on loans (made infrequently) to the chartered banks. Over the past 12 months, the Bank of Canada has raised the bank rate seven times, from 7.5% in January 1978 to an all-time high of 11.25% in January 1979, prompting the chartered banks to increase their prime lending rates charged to the most credit-worthy corporate borrowers from 8.25% in January 1978 to 12% by January 1979.

According to the Governor of the Bank, this policy approach was undertaken with some reluctance, "because neither the present state of the domestic economy nor the recent pace of monetary expansion would, in the normal course of events, have seemed to call for any marked upward adjustment of short-term interest rates in Canada". But the Bank's primary concern has been to prop up the sagging dollar, because a lower dollar fuels inflation by increasing the prices of imported goods. A 10% decline in the dollar produces an estimated increase of 2% in the CPI in the first year and up to 4% in total by the fourth year.

For some years now, Canadian interest rates have been higher than those prevailing in the United States, causing an inflow of capital to Canada. When U.S. rates began to move up throughout 1977 and early 1978, Canadian authorities were concerned that this inflow of capital would no longer be enough to cover the substantial deficit in Canada's international trade in

goods and services (the current account of the balance of payments).

A move to still higher interest rates in the U.S. recently has heightened this concern. As U.S. interest rates have risen, then, the Bank of Canada has increased Canadian rates so that the differential between the two countries would be maintained.

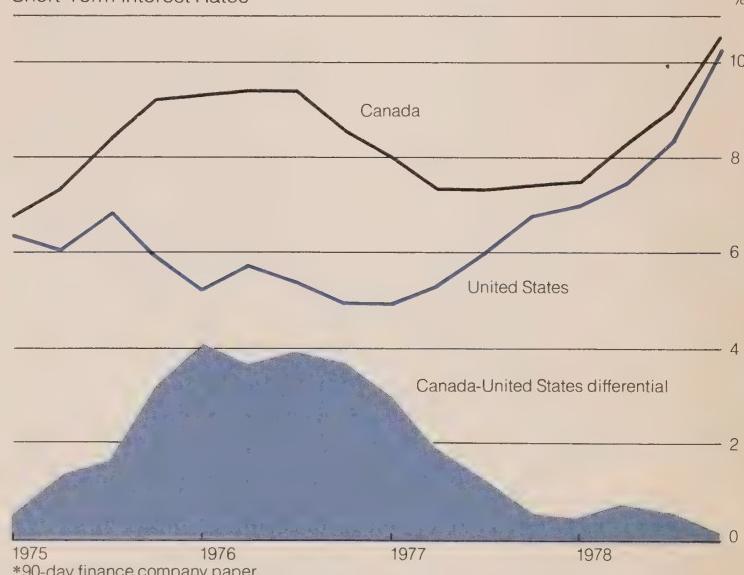
The result has been to tighten credit conditions in Canada, making it more expensive for both business and individuals to borrow money. Mortgage rates, for example, have gone up by about one percentage point. The consequence is likely to be a reduction in the rate of growth of residential construction this year by about two percentage points, after allowing for inflation.

reduce the rate of growth in demand for these durable goods by about one and a quarter percentage points in 1979.

Tighter credit conditions will affect business borrowers too, and particularly small businesses which do most of their borrowing at the banks. Investment in inventories and financing to start construction of new plant or to buy equipment are affected by the cost and availability of funds. We estimate that recent increases in interest rates could reduce the rate of growth in business spending, after allowing for inflation, by as much as one percentage point over the course of this year.

Initially, the higher costs of doing business will be passed on to the con-

Short-Term Interest Rates*



Demand for household appliances and furniture, which is closely associated with home-building activity, will fall too. And since these big ticket items are usually financed on credit, higher interest rates will discourage consumers from buying as well. Car buyers will be similarly affected. We estimate that higher interest rates will

sumer in the form of higher prices. So higher interest rates will contribute to inflationary pressures in the short-run. But, as the rate of growth in demand for goods and services slows down, the rate of inflation will decline. It's a costly way to bring down inflation, but further declines in the dollar would bring their own inflationary problems.

Dollar Depreciation:

PRODUCTIVITY, PRODUCTIVITY, PRODUCTIVITY, PRO

A major element in the determination of exchange rates in the longer run is the comparative productivity and cost performance of countries.

In the shorter run—one or two years—offsetting factors can be equally or more important. But ultimately the most telling factor is productivity and cost performance.

The relationship can be explained this way:

Compensation paid to employees makes up about two-thirds (on average) of the total unit cost of producing goods and services in this country. Increases in compensation unmatched by increases in productivity raise production costs which, in turn, raise prices.

Increases in Canadian costs and prices relative to those of other major trading countries reduce Canada's international competitiveness, as Canadian producers become increasingly unable to produce and sell their products as cheaply as their foreign competitors do.

As foreign and Canadian buyers switch their purchases from Canadian goods to those made elsewhere, there is a deterioration in the domestic balance of payments situation—that is, exports decline while imports rise.

This situation changes the overall demand for, and supply of, Canadian dollars in the foreign exchange market. Foreign producers of goods sold in Canada now have a larger quantity of Canadian dollars to be offered in that market in exchange for their own national currencies, and Canadian producers meanwhile have smaller earnings of foreign currencies to be exchanged for Canadian dollars. The result is a lower price at which the Canadian dollar is bought and sold.

This currency depreciation works towards bringing domestic costs and prices back into line with foreign costs and prices through raising the prices of imports at home and lowering the costs and prices of Canadian exports measured in foreign currency.

While the depreciation tends to restore the relative international cost and price position, it adds to the domestic inflation already in progress as a result of the original compensation increases in excess of productivity growth.

Currency depreciation can be viewed as part of an adjustment process that ultimately brings the growth of compensation, deflated by the loss in purchasing power, into line with the growth in productivity.

The accompanying charts illustrate Canada's performance in the

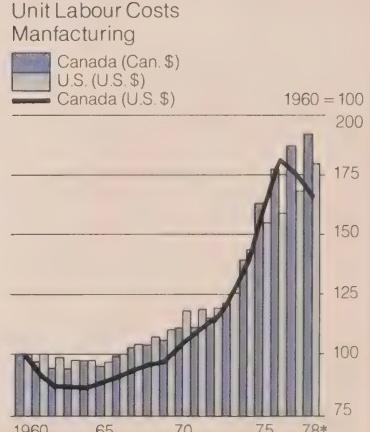
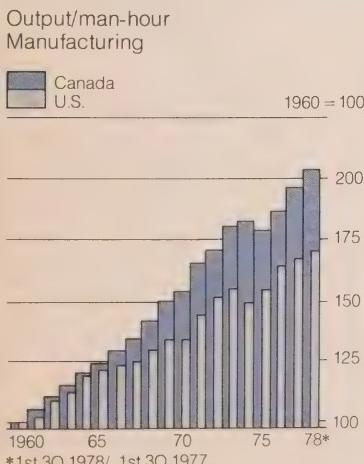
manufacturing sector relative to the United States.

Output per man-hour (or productivity) in manufacturing has risen faster in Canada than in the United States.

(But keep in mind that Canadian productivity started lower. In the early 1960s it was on average about 60% of the U.S. level. While the gap has narrowed due to the faster rise in Canada, the gap still exists.)

But even though Canadian manufacturing productivity made gains relative to the United States through the 1960s and early 1970s, compensation paid in Canadian manufacturing rose relatively faster, as the chart indicates.

As mentioned above, this results in a rise in Canadian unit labour costs relative to the United States as charted here, where changes in unit labour costs are approximately equal to the change in labour compensation less the change in labour productivity. Observe, though, that the chart portrays the relative *changes* in unit labour costs and not the *levels*. The recent decline in Canadian unit costs expressed in U.S. dollars through the effect of the depreciation indicates *not* that our cost levels have fallen below those in the U.S., but only that they have now returned to about the same relative position as in the early 1960s.



The need for gradual recovery in profits

The aggregate profits of Canada's non-financial corporations were \$9.3 billion in the first nine months of 1978, up 21% from the same period a year earlier. Total value of sales in this period rose 11%, indicating that profit margins increased.

In the Centre's view, a gradual improvement in corporation profits is necessary to rebuild cash positions and finance the capital investment that will stimulate economic growth and employment.

In the current inflationary environment the Centre strongly supports the view that the business sector must now take the lead in a policy of gradualism in profit recovery as the economy emerges from the program of mandatory wage and price controls.

Business management has a responsibility in these circumstances to demonstrate to employees and the general public how current profit levels can contribute to the attainment of Canada's national economic objectives. The link between investment and jobs must be kept constantly in mind.

In its ongoing analysis of profit performance in Canadian industry, the Centre will take into account a variety of factors, including:

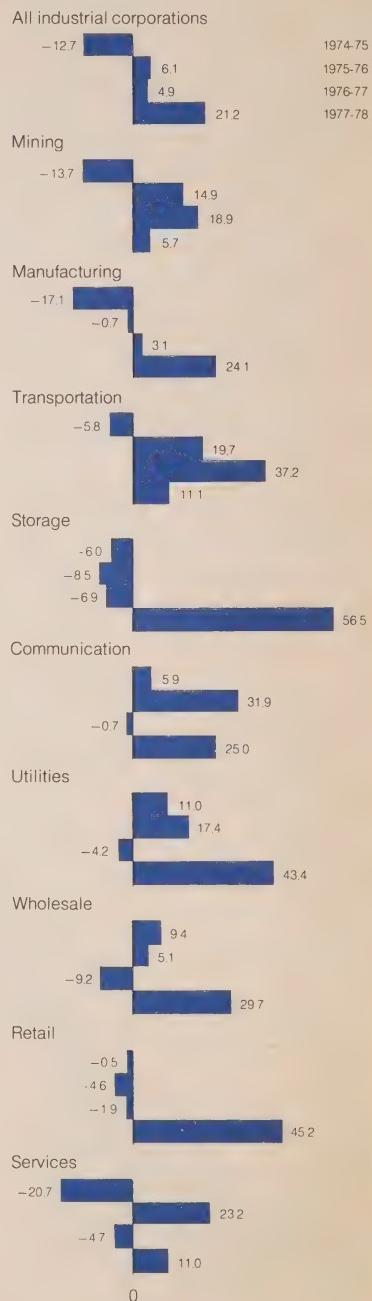
- the pace of price and rate changes for the products and services of the various industry groups;

- the extent to which improved results reflect operating or marketing efficiencies, or higher Canadian-dollar earnings from sales in foreign markets;
- the degree to which current production capacity is being used;
- foreseeable requirements for new or more efficient plant and equipment;
- the rate of return on equity both historically and in relation to the need to attract new investment capital;
- the competitive situation faced by various industries in particular markets or areas;
- where possible, the range of profit variation among firms within industries, and;
- the relation of current profit levels to those of previous periods.

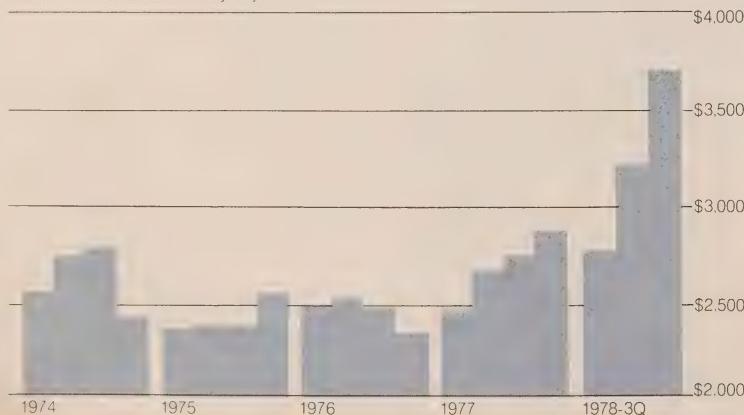
Confined as it is to publicly available information, the Centre in its post-controls monitoring of profit performance in Canada has been hampered by the lack of timeliness in general profit statistics. The third-quarter 1978 results reported here were the most recent available from Statistics Canada when this issue of *The Monitor* went to press in early February. The data can be summarized as follows:

The third-quarter 1978 seasonally adjusted level of after-tax profits for non-financial corporations as a whole was 32% above the peak for the pre-

Corporate Profits after Taxes
Percentage change in total after-tax profits
between first nine months of 1974-75, 1975-76,
1976-77, 1977-78



After-Tax Profits of Industrial Corporations
Millions of dollars, seasonally adjusted



Profits: back to trend

A look at total corporate profits—including those of the financial corporations excluded from the assessment starting on page 12—shows that they have been very erratic through the 1970s.

In the fourth quarter of 1973, as the Canadian economy finished its fifth post-war upswing, corporate profits before taxes were 47% higher than a year earlier on a national accounts basis. While profit growth slowed in 1974, the year's average was still 30% above 1973.

Then Canadian exports began to suffer as the U.S. economy slowed and moved into recession, and Canadians saw their foreign terms-of-trade deteriorate—import prices rose faster than export prices. These factors plus rising domestic costs and slowing domestic demand reduced corporate profits by almost 2% in 1975.

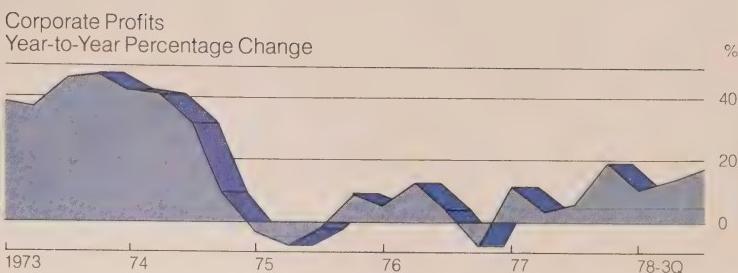
As the U.S. economy recovered in 1976, Canadian exports gained momentum. However, the combination of the deterioration in terms of trade and further high increases in costs, particularly labour costs, combined to limit profit growth to 3% in 1976.

As the Canadian dollar fell from above par in late 1976 to around \$0.90

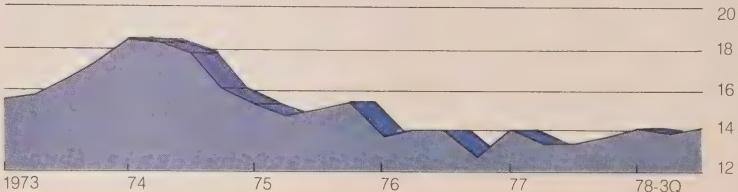
controls period reached in the third quarter of 1974. A quarter-by-quarter comparison indicates that profits continued the upward trend that began in the first quarter of 1977, following the relatively low levels of the two previous years.

In comparing the nine-month figures for 1978 and 1977, particularly large gains are evident in the after-tax profits of the storage and retail-trade sectors, up 57% and 45%, respectively.

The marked profit increases in retailing are especially noteworthy, given the visibility of that sector in consumer purchases and consumer prices. Within the total, profits in large department stores advanced by 87%, those of motor vehicle dealers by 42%, food stores by 42%, and other retailers by 33%. Other above-average increases were recorded by wholesale trade, utilities, manufacturing, and communications.



Corporate Profits
As a Share of National Income*



*Net national income at factor cost
U.S. at the end of 1977, export-oriented industries which contract in foreign currencies witnessed large gains in profits, particularly in the last half of the year. Profits on domestic sales remained weak as economic activity in Canada was sluggish. On average, profits advanced by slightly over 10% in 1977.

Last year, as the Canadian dollar

continued to depreciate, domestic demand growth in Canada picked up somewhat and corporate profits over the first nine months of 1978 increased 14% from the same period of 1977.

As the bottom chart shows, profits as a share of national income have had the same growth, and now have moved back towards their long-term trend share.

Relatively small improvements were recorded by firms engaged in mining, in transportation, and in business, personal and community services.

In the manufacturing sector—which accounts for almost half of all after-tax profits in Canadian non-financial corporations—profits rose by slightly more than the overall average, by 24% for the nine-month year-over-year comparison. Particularly large profit increases occurred in a number of manufacturing groups—wood 87%, paper and allied products 66%, printing and publishing 58%, primary metals 47%, and electrical products 44%.

Less dramatic profit gains are reported for rubber industries at 32%, machinery 27%, metal fabricating 24%, and food and beverage manufacturers at 20%. Relatively low increases or declines in profit levels were registered by the chemicals, textiles, non-metallic

mineral products, and transportation equipment manufacturers.

For the first time, new Statistics Canada data make possible on a current basis a statistical separation between the main components of the food and beverage industry, which historically have been grouped together in official statistics. In comparison with the first nine months of 1977, the three-quarter after-tax profits of the breweries are now shown to have increased by 33%, and those of food processors by 30%. Declines of 13% for soft-drink manufacturers, and 12% for the distilleries, also occurred. In all cases, the position relative to the previous year deteriorated as the year progressed. For breweries, soft-drink manufacturers and the distilleries, after-tax profits for the third quarter of 1978 were below those for the same quarter of 1977, while those for food processors were up 18%.

Tracking the fallen \$ through the system

In the past two years the value of the Canadian dollar has dropped almost 17% against the U.S. dollar. Because at the same time the value of the U.S. dollar was falling on international markets, the depreciation of the Canadian dollar against the Japanese yen and some European currencies has been even more dramatic.

Such a massive decline in the external value of the dollar has far-reaching consequences for the Canadian economy. What are they? And why have policy-makers been so concerned? What follows is a step-by-step guide to the impact of a currency depreciation on our economy, and an estimate of how it has affected Canada's economic performance up to now and what the impact will be over the next two years.

Two things happen immediately when the exchange rate drops: imports become more expensive at home and exports become more competitive abroad.

The import side

Let's look at imports first. Canada imports about a quarter of all the goods and services it uses, so when the price of imported goods goes up it has much more effect on our prices than it would, for example, in the United States, which imports only about 10% of the products it consumes.

Faced with higher prices for imported products, Canadians can either continue to buy imports regardless of price, or they can switch to now cheaper, Canadian-made substitutes, or to other products altogether. How consumers react to the higher prices will help to determine how much the economy will be affected by the fall of the dollar.

To take a simple example: suppose each year you buy a watch. Let's say that before the depreciation watches made in Canada cost \$110, but those made in Japan cost \$100. So you buy Japanese. Now suppose the Canadian dollar depreciates against the Japanese yen so that the same Japanese watch now costs \$120. If you continue to buy Japanese watches, even though they now cost 20% more, then your "cost of living" will have in-

creased. You will have to buy less now of other products.

Suppose that, instead, you decide to stop buying the Japanese product and to switch to the Canadian-made version. Your cost of living would increase less rapidly because you only moved up from a \$100 watch to a \$110 watch (assuming Canadian producers don't raise their prices). You could also decide to stop buying watches altogether and to spend your money on something else.

It is not quite as simple to measure how the reactions of all Canadians to a currency depreciation will affect the economy as a whole. What will happen to prices and to the rate of inflation reflected in the Consumer Price Index?

The CPI prices the same collection, or "basket", of goods is bought each month. So that if the basket includes Japanese watches and the price of these watches goes up the index will measure the now-higher price of Japanese watches and this will be reflected in the total CPI. Ultimately, though, the CPI will reflect the switch from Japanese watches to Canadian watches, or from watches in general to other products.

What happens to exports?

As we said at the beginning, a drop in the exchange rate makes exports more competitive and that ought to help Canadian exporters to sell more. How the depreciation actually helps Canadian exports depends a great deal on how the prices of our exported goods are set. Much of Canada's exports consist of resource-based products such as wheat, lumber and pulp and paper. The prices for these kinds of products are set on world markets and Canada, being a relatively small country, only supplies part of the market. So when the Canadian dollar goes down, what usually happens is that Canadian exporters, whose products are priced in U.S. dollars, do not change their export prices. They will now get more Canadian dollars when they convert the proceeds of their export sales—in other words, higher profits. This has happened to exporting industries, such as paper and allied products (see page 16).

Even if export prices do not change, the volume of this type of export may rise because the added revenue from sales gives Canadian exporters the opportunity to push into new markets by absorbing extra selling and transportation charges and offering better credit terms. In addition, a part of the higher profits may be spent on modernizing and expanding plant and equipment so that output can be stepped up and produced more competitively, but this is likely to take several years.

The export prices of many Canadian products, especially manufactured products, are, of course largely determined by Canadian factors such as wage costs, capacity utilization, inventory levels and the like. Because of depreciation, these prices when translated to foreign currency terms are reduced for consumers abroad. How much these foreign consumers increase their demand for these now-cheaper products depends on the importance of price in their decision on whether to buy the products. If price is important to them, Canadian producers could notice a significant pick-up in demand for their products as a result of depreciation.

Because foreign influences are greater on Canadian import prices than on export prices, the Canadian-dollar prices of imports rise faster than exports following a depreciation. This means that the terms of trade move against Canada and that initially the balance on our international trade in goods and services deteriorates. But over a longer period, as Canadians and foreigners react to the relative price changes, imports are reduced and exports are increased, and the balance of trade improves.

There will be indirect effects on the prices of Canadian products that will narrow the competitive edge initially offered by depreciation. Over one-third of Canada's total imports are in the form of raw and semi-processed materials or machinery needed to manufacture finished products. So after a time lapse, the prices of these finished products will rise too.

And then there's the effect on wages. In some cases, wages are linked

to the CPI, through Cost of Living Allowance (COLA) clauses. Changes in the CPI will trigger higher wages, and higher wage bills will prompt employers to put up their prices. More importantly, workers whose incomes are not indexed will see the higher CPI and will also want higher incomes, and so it goes on.

In addition some Canadian import-competing firms may be able to increase their prices after a depreciation because there is less competition from imports. And Canadian exporters who have some measure of control over the prices they charge can decide not to pass all of the depreciation effects to their foreign buyers. Exported products are also often sold in Canada. If their prices rise, Canadian inflation rises as well. Thus there are many channels through which the initial competitive edge of depreciation can be blunted, and the potential for higher production reduced.

To sum up, then, some of the impact of a currency depreciation will be felt immediately, but there will be other effects which may take several years to work their way through the system. In all of this, the role played by the government will be crucial. If, for example, it is following a policy of restraint, it may offset some of the effects of the imported inflation, but it may be at the cost of higher unemployment.

What depreciation has cost us up to now

An econometric model can be used to estimate how a currency depreciation will affect the economy. Such a model is a set of equations on the relationship between the various parts of the economy. They can be used to analyse the impact of different events and policies on the economy, but the assumptions about the relationships are critical, and the results are always subject to a margin of error.

For our calculations, we have used the econometric model developed by the Conference Board in Canada, known as 'AERIC'. We have looked at a two-year period from the fourth quarter of 1976 to the fourth quarter of 1978, during which the Canadian dollar dropped almost 17% against the U.S. dollar. This is what we found:

- The balance on Canada's international trade in goods and services (the

current account of the balance of payments) is better off because of the depreciation. The initial terms-of-trade loss led to a deterioration in this account of \$500 million from the end of 1976 to the end of 1977. Volume gains in the next year to the end of 1978 more than offset the terms-of-trade loss to register an improvement of \$1 billion. We still had a deficit in this account at the end of 1978, but as a result of the depreciation the deficit was reduced over the two-year period by \$500 million.

- Canada has experienced more inflation because of the depreciation. By the end of 1978, the CPI was 6½% higher than it would have been without the dollar depreciation. So the dollar decline has been responsible for about one-third of the total inflation measured by the CPI in this two-year period. In 1978 the CPI rose 9.0% from the year before. Without depreciation of the dollar the increase would have been about 6%.
- After the depreciation, exports grow more quickly and imports grow more slowly, so the total output of goods and services (the Gross National Product) increases. But higher rates of inflation reduce real incomes which discourages consumers from buying, and this offsets earlier output gains. Over the two-year period, the currency depreciation has not significantly affected the level of the GNP after allowing for inflation. But the composition of the GNP has changed, so that now more Canadian production is consumed outside the country instead of by Canadians, because more of our production must now go into exports to pay for our more expensive imports. Inside Canada, there has been a redistribution of income from Canadian consumers to Canadian exporters and producers of goods that compete with imports.
- Wage increases are only about 1% higher than they would have been without the dollar drop, but this is mainly because controls were in effect for most of this time.

This year and next

Canada will still be feeling the effects of the past two years' dollar depreciation throughout 1979 and 1980. Just how much the economy will be affected will depend now on how Cana-

dians react to the depreciation we have experienced so far. Many Canadian manufacturers and other companies whose products compete with imports now have an opportunity to capture business away from foreign suppliers so long as they can keep their prices down. If they react to the depreciation by increasing their prices to match the prices of imported goods, they will simply add to inflationary pressure in the economy.

More significant will be the way in which incomes respond to the depreciation. If workers and others now demand income increases to match the higher rate of inflation that depreciation has caused, still higher prices and more depreciation will result. If restraint is shown in income demands, then the unfavourable impact on the economy — and particularly on the rate of inflation — will be lessened. In fact if income demands are restrained, real incomes (that is, wages and salaries after allowing for inflation) will be higher than if Canadians try to recoup the full extent of the depreciation-induced inflation.

Given the impact of depreciation so far, the Centre has estimated the benefits to the Canadian economy of restraining incomes so that they do not attempt to recapture the lost purchasing power resulting from depreciation. The results, which apply from the fourth quarter of 1978 to the fourth quarter of 1980, are as follows:

- Canada's trade in goods and services (the current account of the balance of payments) would be improved by about \$200 million.
- The Consumer Price Index would be 2 to 2½ percentage points lower.
- The rate of growth in GNP would be about one-third of a percentage point higher.

In fact if Canadians act responsibly in their pricing and income decisions, the largest part of the price impact of the dollars' depreciation will already have been felt and the future impact on prices may be close to zero over the next two years. The alternative is more inflation, less output and lower real incomes and the strong possibility that we could have another round of depreciation and inflation.

The Oil-price Gap:

The \$2.3 billion consumer subsidy

The OPEC decision to raise the price of crude oil by a total of 14.5% in several stages through 1979 has shocked the oil consuming world, which had become accustomed to relatively stable prices in the preceding three years.

From the beginning of 1976 to the end of 1978, the international price of oil measured in U.S. dollars increased about 3% a year. Many countries, however, incurred declining costs for imported oil because of the significant appreciation of their currencies against the U.S. dollar.

Will OPEC be able to maintain the new higher price? Yes, on at least three counts:

1. World demand for oil is again increasing, led primarily by the United States where conservation efforts are not making a large enough impact on energy usage. Americans now import about 46% of their crude oil requirements, compared with 27% in 1973.
2. Saudi Arabia, the world's largest oil exporter, has accepted the increase, after having gone on record as favouring a more moderate increase, in the range of 5%.
3. Political turmoil in Iran, one of the mid-East's major producers, has temporarily curtailed exports from that country. This unexpected supply cutback will make the remaining international oil supplies even more sought-after and will support the higher price.

The Canadian impact

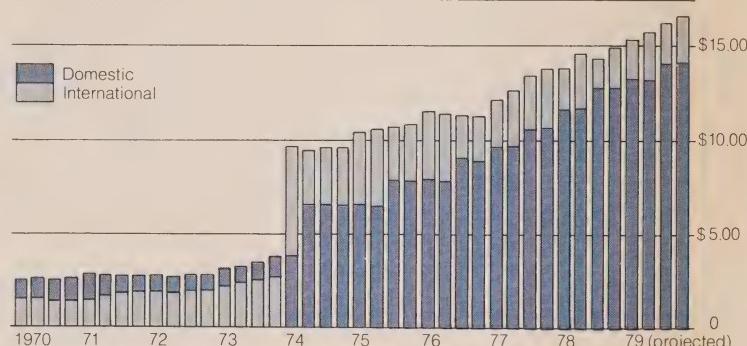
Since 1973 the federal and provincial governments have kept the domestic price of crude oil significantly below the world level. The objective has been to spread the costs of adjustment more evenly over time and across the country. Imports to Eastern Canada are subsidized to bring the price down to the domestic level—the amount of subsidy depending on the difference between the world and domestic prices. The subsidy has been financed

from an export tax on the oil we sell to the United States and a federal tax on gasoline of 7 cents a gallon, while the lower price on domestically produced oil has been at the expense of the oil-producing provinces and the oil companies.

The way Canadians are affected by higher prices for imported oil depends on the extent to which the rise is passed on in the domestic market.

Since 1974, it has been Canada's oil policy to move the domestic oil price up to the world price subject to the condition that our price does not exceed the average U.S. price.

Crude Oil Prices
Canadian \$ per barrel



As Canadian prices are increased, there is upward pressure on the prices of all goods and services using oil in their production. This has a cumulative effect through all stages of production and eventually shows up in prices at the consumer level. It has been estimated that an oil price increase of \$1 per barrel eventually causes an increase of between 0.75% and 1% in the Consumer Price Index.

On the other hand, keeping the domestic price constant means that a higher subsidy must be paid to maintain the difference in price between domestic and imported oil. In 1974 the oil subsidy program benefited Canadian energy consumers by \$2.9 billion. Part of this (\$1.6 billion) represented forgone revenue and royal-

ties by the producers and provincial governments who kept the price of domestically produced oil below the world levels. The remaining \$1.3 billion was paid by the federal government to oil refiners to maintain the same domestic price for imported oil. This \$1.3 billion expenditure was financed through a tax on the oil we export to the United States.

By 1978, the distribution of these payments had substantially changed. The benefit to consumers had fallen to \$2.1 billion, of which \$1.6 billion was revenue forgone by the provinces and companies on domestic oil and \$500

million was from the import subsidy program. But since consumers now paid \$500 million through the federal gasoline excise tax to finance the import subsidy, the net consumer subsidy was reduced to \$1.6 billion. Because the excise tax fully paid for the import subsidy, the federal government received the benefit of the tax on the exported oil to the U.S.—now only \$300 million because of reduced exports.

By 1980, the same price gap

Prior to announcement of the OPEC decision, the Canadian and Alberta Governments had agreed that the \$1-a-barrel increase initially agreed to for January 1, 1979, would be postponed to next July and a further

\$1-a-barrel increase would be tentatively scheduled for January 1, 1980. The Canadian price to users was, however, increased on January 1, 1979, because of an increase to 33 cents per barrel from 10 cents in the refinery levy that subsidizes the price of synthetic crude oil produced by Syncrude Great Canadian Oil Sands.

The federal government has to permit this higher price to age and sustain the development of these alternative sources of energy (in effect guaranteeing world oil prices).

As a result of this January 1 increase in the refinery levy the price of gasoline, motor oil and home heating fuel rise by two-thirds of a cent a litre. There could be additional increases added by oil refiners and distributors if they pass on other cost increases or move to restore their profits. These prices can be expected to be at least a further 3 cents a litre after the July 1 oil price increase and by another 3 cents after January 1. Again, the amount of total increase will depend on appends to other costs and the margins of refiners and distributor's increase to consumers will about 60 days after the oil-price increase takes effect — the approximate time it will take to run down inventories. Other prices will rise at later dates as the increased costs are passed through the economy.

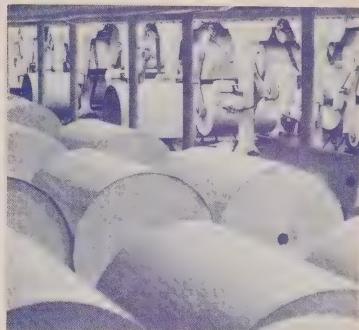
Even though Canadian consumers will pay about \$840 million more for their oil in 1979 as a result of the domestic price increase, the policy of protecting consumers from world oil prices will increase the net consumer benefit by about \$700 million, from \$1.6 billion to approximately \$2.3 billion in 1979.

The chart shows the effect of this policy. Despite these two increases, the amount of subsidy per barrel of oil will be roughly the same (about \$3.50 a barrel) as it has been for several years, assuming no further depreciation in the Canadian dollar or change in world oil prices. In other words, the increases may just keep up with the cost increases in imported oil.

Dollar Depreciation:

Recovery in paper products: let it be

The impact of dollar depreciation on the paper and allied products industry has so far been encouraging. Output has increased substantially, and the profit recovery that began in mid-1977 appears to have continued.



The improved profit performance has been achieved by increasing productivity rather than by unduly raising prices in Canada. Price increases in the industry during 1978 were below the average for other manufacturing industries.

The industry in 1977 exported about 56% of its total output, and 90% of all newsprint produced. Because most of their prices are established in international markets, the Canadian producers receive immediate revenue increases when the dollar declines in value. Although dollar depreciation will also push up their production costs, this process takes longer. In the meantime, the producers can use the extra revenue to expand sales either by offering price reductions or by absorbing the additional costs of pushing into new markets.

In fact most of the recent improvement in the sales of Canadian paper and allied products can be attributed to the drop in the exchange rate, combined with reasonably buoyant demand. After removing the effects of inflation, the volume of Canadian output of paper and paper products increased roughly twice as fast in 1977 and the first half of 1978 as the real output of the U.S. industry. The Canadian share of the U.S. newsprint market rose to

65.7% in the first nine months of 1978, from 62.1% in the same period of 1977.

These increases have put a lot of previously under-used resources back to work: the industry's capacity utilization increased from an average of 72.6% in 1975 to 91.6% in the third quarter of 1978, the highest level since the autumn of 1974. That spells more efficiency, and indeed labour productivity in the industry increased by 10.3% in the first nine months of 1978. Thus the cost of labour per unit of output has dropped significantly, and this should restore some of the competitive advantage that the industry lost to the United States in 1975 and 1976. Now that the industry is operating close to capacity, however, further increases in output will mean higher costs unless new production capacity can be added fairly quickly.

A major problem facing the Canadian industry is the growing obsolescence of its plant and equipment. The strong recovery of corporate profits in the industry over the past year should assist the financing necessary for modernization, and thus improve competitiveness still further.

There are indications that this investment will be undertaken. The Department of Industry, Trade and Commerce survey of investment intentions last fall estimated that capital spending by the forest products industries, of which the paper and allied products industry is a part, will be up by 9.2% in 1979, after allowing for inflation. This follows a slight decline last year. More than half the new spending will be to upgrade and replace outdated facilities. But this is only a start; more is necessary.

Although it will be some time before the industry is able to increase output substantially without incurring higher costs, it is on the road to growth. Whether it will stay on that course depends partly on whether it can avoid having its increased revenues diverted from reinvestment plans by demands from employees, suppliers and customers for a disproportionate piece of the action.

The Oil-price Gap:

The \$2.3 billion consumer subsidy

The OPEC decision to raise the price of crude oil by a total of 14.5% in several stages through 1979 has shocked the oil consuming world, which had become accustomed to relatively stable prices in the preceding three years.

From the beginning of 1976 to the end of 1978, the international price of oil measured in U.S. dollars increased about 3% a year. Many countries, however, incurred declining costs for imported oil because of the significant appreciation of their currencies against the U.S. dollar.

Will OPEC be able to maintain the new higher price? Yes, on at least three counts:

1. World demand for oil is again increasing, led primarily by the United States where conservation efforts are not making a large enough impact on energy usage. Americans now import about 46% of their crude oil requirements, compared with 27% in 1973.
2. Saudi Arabia, the world's largest oil exporter, has accepted the increase, after having gone on record as favouring a more moderate increase, in the range of 5%.
3. Political turmoil in Iran, one of the mid-East's major producers, has temporarily curtailed exports from that country. This unexpected supply cutback will make the remaining international oil supplies even more sought-after and will support the higher price.

The Canadian impact

Since 1973 the federal and provincial governments have kept the domestic price of crude oil significantly below the world level. The objective has been to spread the costs of adjustment more evenly over time and across the country. Imports to Eastern Canada are subsidized to bring the price down to the domestic level—the amount of subsidy depending on the difference between the world and domestic prices. The subsidy has been financed

from an export tax on the oil we sell to the United States and a federal tax on gasoline of 7 cents a gallon, while the lower price on domestically produced oil has been at the expense of the oil-producing provinces and the oil companies.

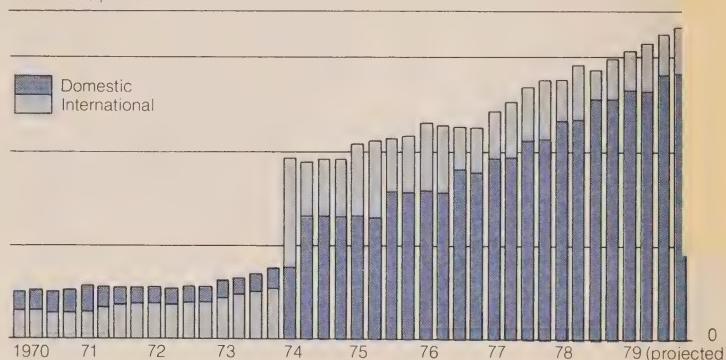
The way Canadians are affected by higher prices for imported oil depends on the extent to which the rise is passed on in the domestic market.

Since 1974, it has been Canada's oil policy to move the domestic oil price up to the world price subject to the condition that our price does not exceed the average U.S. price.

ties by the producers and provincial governments who kept the price of domestically produced oil below the world levels. The remaining \$1.3 billion was paid by the federal government to oil refiners to maintain the same domestic price for imports. This \$1.3 billion expenditure was financed through a tax on the oil exported to the United States.

By 1978, the distribution of payments had substantially changed. The benefit to consumers had fallen to \$2.1 billion, of which \$1.6 billion was revenue forgone by the provincial companies on domestic oil and

Crude Oil Prices
Canadian \$ per barrel



As Canadian prices are increased, there is upward pressure on the prices of all goods and services using oil in their production. This has a cumulative effect through all stages of production and eventually shows up in prices at the consumer level. It has been estimated that an oil price increase of \$1 per barrel eventually causes an increase of between 0.75% and 1% in the Consumer Price Index).

On the other hand, keeping the domestic price constant means that a higher subsidy must be paid to maintain the difference in price between domestic and imported oil. In 1974 the oil subsidy program benefited Canadian energy consumers by \$2.9 billion. Part of this (\$1.6 billion) represented forgone revenue and royal-

million was from the import subsidy program. But since consumers now paid \$500 million through the federal gasoline excise tax to finance the import subsidy, the net consumer subsidy was reduced to \$1.6 billion. Because the excise tax fully paid for the import subsidy, the federal government received the benefit of the tax on the exported oil to the U.S.—now only \$300 million because of reduced exports.

By 1980, the same price gap

Prior to announcement of the OPEC decision, the Canadian and Alberta Governments had agreed that the \$1-a-barrel increase initially agreed to for January 1, 1979, would be postponed to next July and a further

\$1-a-barrel increase would be tentatively scheduled for January 1, 1980. The Canadian price to users was, however, increased on January 1, 1979, because of an increase to 33 cents per barrel from 10 cents in the refinery levy that subsidizes the price of synthetic crude oil produced by Syncrude and Great Canadian Oil Sands.

The federal government has agreed to permit this higher price to encourage and sustain the development of these alternative sources of petroleum energy (in effect guaranteeing them world oil prices).

As a result of this January 1 increase in the refinery levy the price of gasoline, motor oil and home heating oil could rise by two-thirds of a cent a gallon. There could be additional increases added by oil refiners and distributors if they pass on other cost increases or move to restore their profit margins. These prices can be expected to rise by at least a further 3 cents a gallon after the July 1 oil price increase, and by another 3 cents after next January 1. Again, the amount of the actual increase will depend on what happens to other costs and the profit margins of refiners and distributors. The increase to consumers will come about 60 days after the oil-price increase takes effect — the approximate time it will take to run down inventories. Other prices will rise at later dates as the increased costs are passed through the economy.

Even though Canadian consumers will pay about \$840 million more for their oil in 1979 as a result of the domestic price increase, the policy of protecting consumers from world oil prices will increase the net consumer benefit by about \$700 million, from \$1.6 billion to approximately \$2.3 billion in 1979.

The chart shows the effect of this policy. Despite these two increases, the amount of subsidy per barrel of oil will be roughly the same (about \$3.50 a barrel) as it has been for several years, assuming no further depreciation in the Canadian dollar or change in world oil prices. In other words, the increases may just keep up with the cost increases in imported oil.

Dollar Depreciation:

Recovery in paper products: let it be

The impact of dollar depreciation on the paper and allied products industry has so far been encouraging. Output has increased substantially, and the profit recovery that began in mid-1977 appears to have continued.



The improved profit performance has been achieved by increasing productivity rather than by unduly raising prices in Canada. Price increases in the industry during 1978 were below the average for other manufacturing industries.

The industry in 1977 exported about 56% of its total output, and 90% of all newsprint produced. Because most of their prices are established in international markets, the Canadian producers receive immediate revenue increases when the dollar declines in value. Although dollar depreciation will also push up their production costs, this process takes longer. In the meantime, the producers can use the extra revenue to expand sales either by offering price reductions or by absorbing the additional costs of pushing into new markets.

In fact most of the recent improvement in the sales of Canadian paper and allied products can be attributed to the drop in the exchange rate, combined with reasonably buoyant demand. After removing the effects of inflation, the volume of Canadian output of paper and paper products increased roughly twice as fast in 1977 and the first half of 1978 as the real output of the U.S. industry. The Canadian share of the U.S. newsprint market rose to

65.7% in the first nine months of 1978, from 62.1% in the same period of 1977.

These increases have put a lot of previously under-used resources back to work: the industry's capacity utilization increased from an average of 72.6% in 1975 to 91.6% in the third quarter of 1978, the highest level since the autumn of 1974. That spells more efficiency, and indeed labour productivity in the industry increased by 10.3% in the first nine months of 1978. Thus the cost of labour per unit of output has dropped significantly, and this should restore some of the competitive advantage that the industry lost to the United States in 1975 and 1976. Now that the industry is operating close to capacity, however, further increases in output will mean higher costs unless new production capacity can be added fairly quickly.

A major problem facing the Canadian industry is the growing obsolescence of its plant and equipment. The strong recovery of corporate profits in the industry over the past year should assist the financing necessary for modernization, and thus improve competitiveness still further.

There are indications that this investment will be undertaken. The Department of Industry, Trade and Commerce survey of investment intentions last fall estimated that capital spending by the forest products industries, of which the paper and allied products industry is a part, will be up by 9.2% in 1979, after allowing for inflation. This follows a slight decline last year. More than half the new spending will be to upgrade and replace outdated facilities. But this is only a start; more is necessary.

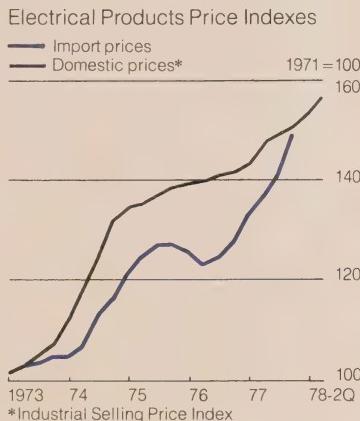
Although it will be some time before the industry is able to increase output substantially without incurring higher costs, it is on the road to growth. Whether it will stay on that course depends partly on whether it can avoid having its increased revenues diverted from reinvestment plans by demands from employees, suppliers and customers for a disproportionate piece of the action.

Dollar Depreciation:

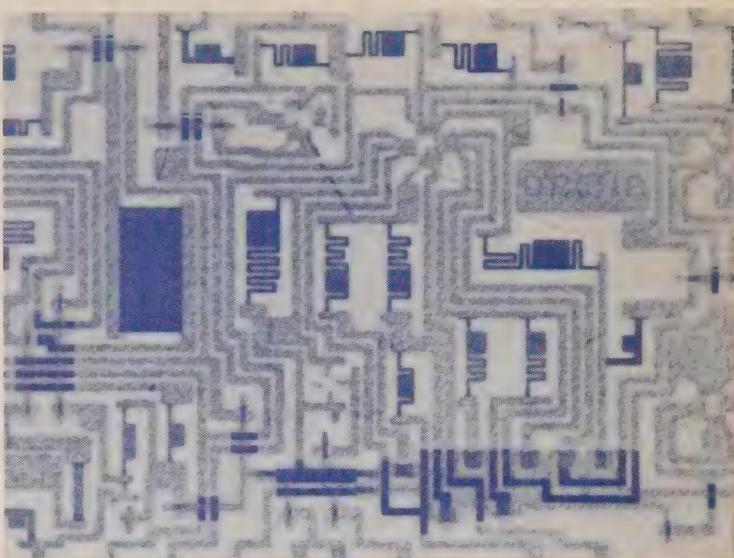
Electrical products: can we displace imports?

Depreciation of the dollar makes imports more expensive and gives Canadian manufacturers a chance to capture business away from foreign suppliers. Companies that face strong competition from imports should therefore be able to benefit from a drop in the exchange rate, so long as they can keep their prices below those for imports. The impact may be somewhat delayed if there has been a build up of inventories which must be disposed of before production can be expanded.

About 36% of the Canadian market for electrical and electronic products is supplied by imports. For small appliances, and radio and television sets, the proportion is much higher. Canadian manufacturers therefore have an opportunity to expand their production substantially if the benefits of the dollar depreciation are used to displace imports.



The chart shows that the decline in the dollar since late 1976 has had a dramatic effect on the spread between domestic and import prices, reversing a trend towards relatively higher prices for domestic production. Except for electrical industrial equipment and batteries, factory prices of Canadian-made electrical products in 1977 increased by less than the average increase in prices for manufacturing as a whole, and price increases were consid-



erably below those for imported electrical products. Preliminary data for the first nine months of 1978 indicate that these trends continued.

At the consumer level too, prices have not risen very much. Retail prices for appliances, for example, are estimated to have increased by only 2.9% in 1977, and 2.7% in 1978.

But Canadian producers have not made inroads into the market, as the share of domestic sales going to imports rose to an estimated 35.6% in 1977 from 33.8% in 1976. Preliminary information for 1978 indicates a further rise in this proportion. The value of imports was up \$287 million in the first three quarters of 1978 over the same period in 1977, a gain of roughly 16%.

About 14% of the total production of the industry is exported, and the depreciation of the dollar has helped to boost the value of exports sharply, by an estimated \$161 million, or 31% in the first nine months of 1978 over the same period in 1977. However, these gains, while encouraging, were not enough to offset the increased import penetration and modest domestic demand growth. The net result was a gain of only \$169 million, or 5.5%, in the

value of domestic shipments by Canadian producers. But this is accounted for by price increases—the volume of goods shipped actually declined. By the third quarter of 1978 output was still below its 1976 level.

These low operating rates, combined with modest price changes and increases in the cost of labour and materials, have depressed profits in the industry. After-tax profits as a percent of shareholders' equity were 8.1% on a seasonally adjusted annual basis in the first quarter of 1978, down from 8.8% in 1977 and 11.5% for 1976.

Conclusions:

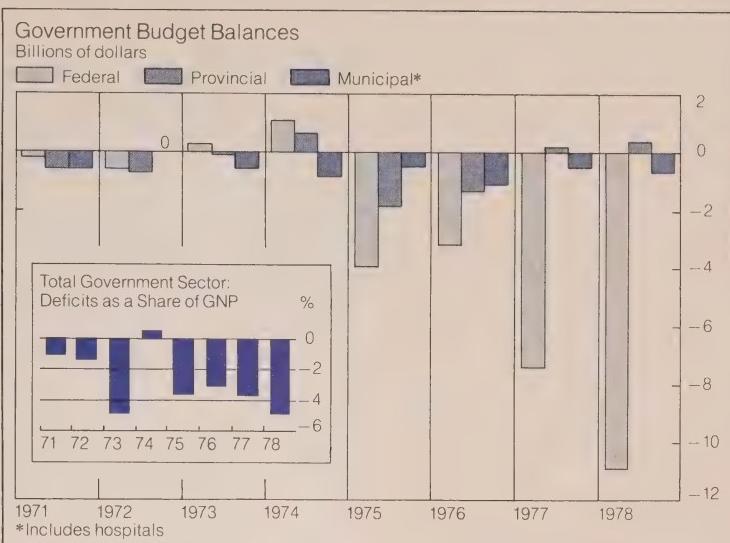
Demand for electrical and electronic products has generally been sluggish, and there has also been a lag in adapting Canadian production to new areas of opportunity.

Stronger performance in the industry will depend not only on consumers' readiness to switch to Canadian-made goods, but also on the ability and willingness of producers to act on new market opportunities so as to capture a bigger share of the huge market which imported electrical products represent.

Government budget balances

In reading the charts (right) the following points should be kept in mind:

- While the federal deficit has grown in recent years—to almost \$11 billion at an annual rate in the first three-quarters of 1978—the federal budget represents only half of all government expenditures in Canada and less than half of all government revenues.
- The relative balance in the provincial government budgets, taken as a whole, is due largely to the surplus in Alberta. The positions of the other provincial governments vary widely, though they have generally improved in the last two years.
- The growth of government revenues in recent years has been retarded by slack in the economy and reduced by various measures of stimulus, notably the indexation of income taxes. The same economic slack has produced higher welfare expenditures, espe-



cially unemployment insurance.

- While government deficits have swollen, so has the size of the economy. As the inset chart shows, the increase

in all-government deficits as a proportion of total output of goods and services in Canada (GNP) has been much less dramatic.

Government-set prices: the need for clarity

Several recent decisions by the federal government have a direct bearing on prices paid by consumers. The decisions cut both ways:

- Overall price increases will be moderated by the reduction of 3 percentage points in the manufacturers' sales tax, the delay until April of proposed air fare increases, and postponement until July of a rise in domestic oil prices.
- Prices paid by consumers will increase as a result of a higher air transportation tax, the April 1 increase in postal rates, and the elimination of the subsidy on domestic wheat.

The price increases stem from the government policy to reduce expenditures and ensure that consumer prices of certain goods and services more fully reflect their true cost.

There is a danger of public confusion in the recent price changes. They would appear to work in opposite di-

rections, and may leave the impression that there is no overall direction to the government's anti-inflation policies.

Where there have been price increases, they can be viewed not as an increased burden on the whole economy, but a change in the manner of payment. Postal services can be paid for either from taxes or higher postal rates. If government expenditure goes down when the rates go up, the total cost to the public is not changed.

However, different people will be affected in very different ways by these price changes. In the past, a person consuming relatively more bread or a business mailing more letters than other people received a subsidy from other Canadians who ate less bread, or mailed fewer letters.

Higher bread prices will hurt the poorest consumers the most. In 1976, the fraction of income spent on bread by an urban Canadian family earning between \$8,000 and \$10,000 was almost three times as high as the family

with an income over \$25,000. Lower income Canadians have already been hurt relatively more by the rapid increase in food prices since 1977.

In addition to the list of federal government pricing decisions, actions have been taken by the governments with a similar bearing on prices. For instance, in Quebec the withdrawal of subsidies to commuter trains has led CN Rail and CP Rail to raise significantly Montreal commuter fares.

The Centre believes that all governments should be careful to restrain increases in government-determined prices, particularly in those cases where the impact is regressive. Where they are necessary, the connection between subsidized prices and tax levels should be made clear.

When governments make a number of price decisions in different directions, it would be useful to explain to the public why some price increases should be postponed (as in the case of oil) and why others should go ahead (such as bread).

The Dairy Industry:

A case study of economic inefficiency

Consider, first, three basic points:

- The Canadian dairy industry will be guaranteed a price of \$1.32 a pound for its butter this year, although butter is selling on world markets for less than half this price.
- Processors will get 78 cents a pound for the skim milk powder, which they produce as a by-product of the butter. But skim milk powder fetches about 24 cents a pound on world markets, a price which is well below the cost of production.
- The Canadian Dairy Commission (CDC), which controls the production of dairy products in this country, will buy up the skim milk powder and sell it at a loss on world markets, a loss that is paid for by a levy on industrial milk producers.

Present dairy policy is based on the premise that the butter needed by Canadians should be supplied as far as possible by Canadian farmers.

From 100 pounds of milk a creamery can produce 4.2 pounds of butter and 8 pounds of skim milk powder. But for each 4.2 pounds of butter used by Canadians, only 2.5 pounds of skim milk are consumed. So, if the dairy industry produces enough butter to satisfy Canadian consumers' demands for this product, it is left with a huge surplus of skim milk powder. In 1977/78, the CDC had to buy up 260 million pounds of the powder from the processors. It was sold for export at a loss of about 50 cents a pound, or \$130 million in total.

The Centre's review of the Canadian dairy industry has raised a number of serious concerns about the impact of current policy on productivity.

The dairy industry in Canada has already undergone dramatic change in the last decade, with the number of dairy farmers falling from 175,000 to 70,000. Despite this decline, particularly in the number of farmers with small herds, the level of technology and scale of the typical dairy farm in Canada lags far behind that of neigh-



bouring states in the United States, where herds are larger. In comparison with the U.S. dairy industry, Canada has lower productivity, lower farm wages, lower return on investment, and—because of our large number of small farms—more capital tied up in the industry than is necessary. As long as the current dairy policy remains in force, there is little incentive to improve efficiency, and the outlook is poor indeed—for farmers, for consumers, and for the economy as a whole.

Almost two-thirds of all milk produced and sold in Canada is "industrial milk". The present policy on the production of this milk, from which butter, cheese and other dairy products are manufactured, has evolved over more than a decade, marked by federal government support and direction for the dairy industry. The objectives of the policy, launched in 1975, were to gradually reduce subsidies to the industry; to guarantee producers specific returns determined by a formula related to their costs of production; to ensure that dairy products consumed in Canada are predominantly of Canadian origin, with the production of milk managed by the CDC to avoid surpluses; and to give consideration to long-term contracts for butter imports.

The CDC, in co-operation with provincial milk marketing boards, is

responsible for achieving these objectives. The only objective that has been met to any great degree so far is that of guaranteeing farmers a pre-determined return for their milk. This is achieved by a device known as the Dairy Returns Adjustment Formula, which sets target prices for industrial milk and support prices for butter and skim milk.

The formula is complicated, but basically it works like this: For each 100 pounds (*cwt*) of industrial milk produced, the farmer gets \$10.28 from the processor and a \$2.66 subsidy from the CDC, giving him a "target return" of \$12.94 per *cwt*. The processor, who has paid \$10.28 per *cwt* for milk, can turn it into 4.2 pounds of butter, which the CDC will buy at \$1.32 a pound, and 8 pounds of skim milk powder for which the CDC pays 78 cents a pound, giving him a total return of \$11.77 per *cwt* of milk processed. All of these amounts are established by the CDC and are adjusted from time to time to reflect changes in the costs of production and, to some extent, changes in the Consumer Price Index.

In addition, the CDC also has the job of overseeing the management of the supply of milk to avoid surpluses. This is done through the Canadian Milk Supply Management Committee, consisting of both federal and provin-

cial representatives, which decides how much industrial milk will be produced and who will produce it.

Production is allocated to the various provinces based on their share of industrial milk production in the past, and then provincial milk marketing boards allocate production quotas to individual farmers and processors. Farmers are told how much industrial milk they may produce, creameries have quotas for butter and skim milk powder, and the amount of industrial milk allowed to cheese makers is also determined by the provincial government authority.

Farmers who produce more than their quota of industrial milk are penalized through an extra levy on their excess production. Farmers who want to expand their production must either obtain a quota increase from their provincial milk marketing board, or buy quotas from other producers. The same procedure must be followed by anyone wishing to start dairy farming.

The shortcomings of Canada's dairy production are becoming increasingly apparent.

First, the objective of supplying all of Canada's butter needs from domestic milk production is a waste of agricultural resources. If milk production were reduced, there could be real economic gains from buying cheaper imported butter and from reducing the loss on the export of skim milk powder.

Obviously, cutting back milk production would have adverse short-term economic consequences for some farmers who would have to leave dairy farming and for some processors who would have to lower their production of butter and skim milk powder. None-

theless, there would be a net gain for the economy which could be used to help finance the adjustment of those affected into more profitable activities.

Given the tremendous adjustment that the industry has gone through in recent years, it appears that further rationalization will inevitably occur. The question for policy makers and farmers alike is whether this adjustment will occur in a planned and rational way or in an unplanned and painful way.

A second shortcoming of the present system is the lack of incentive for both provincial authorities and farmers to allocate milk production to its most profitable uses. Part of the problem is that the CDC collects a levy from all farmers to cover losses on skim milk powder. They must pay in proportion to their total production of industrial milk regardless of whether they themselves contributed to the surplus of skim milk powder.

For instance, cheddar cheese is a more highly valued product than butter and does not leave a skim milk powder by-product to be exported at a loss. But in Ontario, cheddar cheese manufacturers have complained that they have been unable to get enough milk allocated to them to make all the cheese they could sell. In economic terms it would be better to produce more cheese and less butter, but there is no incentive for the provincial board to allow this, especially since the creameries that make butter and skim milk powder would complain.

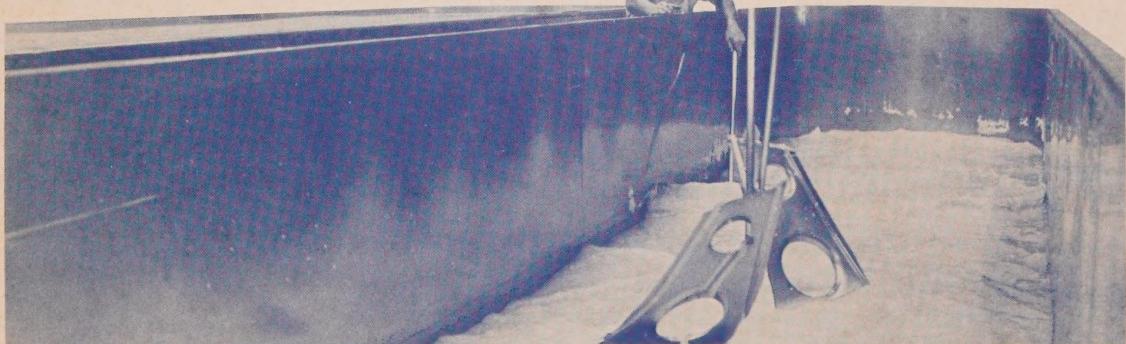
Similarly, the farmer who produces milk, separates the cream, and feeds the remaining skim milk to his livestock, must still pay the levy to cover the loss on the export of skim

milk powder. This producer, however, will receive less per *cwt* of milk than the farmer who sells his milk to a processor to be turned into butter and skim milk powder. The pricing policy thus encourages investment in milk production and discourages the production of cream.

A third problem relates to the combined effects of the subsidy, the Dairy Returns Adjustment Formula and the method of allocating quotas. Because the target return is geared to the typical farmer, it means that it is not high enough for some farmers and too high for others. The larger, more efficient farmers (or new farmers wishing to start in the business) can only expand by buying quotas from others. The purchase of a quota may in effect be the purchase of the right to receive expected subsidies in the future. The system of subsidies and quotas may do no more than provide a bonus to existing producers and inhibit the ability of the next generation to start in the business.

The masking of market signals inherent in current dairy pricing and support policies is in danger of inhibiting the continued development of a more efficient industry and is doing so at substantial economic cost to farmers and taxpaying alike.

The problem for government policy is to lead the industry in a long-term direction towards greater efficiency, while helping to bridge the short-term costs of adjustment. No one is pretending that the answers will be easy, but the problems need to be addressed. The place to start is with a thorough public debate on current Canadian dairy policy.



Collective Bargaining

More centralized bargaining? Any pay-off?

There are close to 20,000 collective bargaining agreements now in existence in Canada.

In three out of every four cases, the agreement has been reached between one company and one union representing some or all of the workers.

Wider-based bargaining, where it exists, may take the form of (a) an association of employers negotiating with one union, or (b) a group of unions working a contract with one employer, or (c) two or more unions bargaining with two or more companies, a situation that is rare indeed.

This points to a degree of bargaining fragmentation in Canada that is probably unmatched anywhere in the western industrialized world.

Centralized bargaining reaches its peak in Sweden, where bargaining generally is conducted nationally in a few sets of negotiations affecting most Swedish workers. In Britain and West Germany centralization occurs mainly at the industry level. Even in the United States—often cited as the example of decentralized bargaining—the labour-management structure is less fragmented than in Canada.

The dangers of the Canadian situation can be illustrated by the airlines. Air Canada, for example, bargains separately with each of its four unions representing pilots, machinists, flight attendants, and sales personnel. In three cases last year bargaining disputes led to actual or threatened work stoppages.

This constant spectre of a series of shutdowns in major industries and essential public services has led to increasing public demands for alternative ways of settling differences.

Could Canada adopt the European model of more centralized bargaining? What would we gain from it? Would there be less industrial strife? Fewer strikes? Would our ability to achieve commitment to basic economic goals be enhanced? Right now, for example, would a more centralized structure foster the price and incomes restraint that Canadians collectively

must show if we are to get out of economic difficulty?

Centralization as a remedy could be worse than the ailment. Merging unions with different interests, aims and philosophies could well increase conflict. When a whole industry is considered, firms with different cost structures—or operating in different markets—might face considerable tension in a central bargaining unit.

An example of centralization pitfalls: bargaining in the Quebec and British Columbia construction industries. When a work stoppage happens now, it closes the industry across much of a whole province, compared with the previous pattern of local stoppages. Since 1970 the Quebec industry has been “down” three times and the B.C. industry five times (though the most recent B.C. settlement in 1978 was reached without a work stoppage).

How did we get this way?

Wherever joint bargaining has developed in Canada, it generally has developed in spite of, rather than in response to, labour legislation, which strongly supports single-unit bargaining. Most labour law now gives exclusive bargaining rights to a union representing a group of employees in a particular plant. Wider-based bargaining usually doesn't happen unless both employers and unions agree to it.

Mutual advantage is the key. For unions, there may be the objective of removing wages as a source of competition. Employers may see a chance to stabilize costs, equalize bargaining strength, or pick up administrative savings through joint bargaining. But in Canada these cases are apparently rare.

Some argue that such moves should be left to private interest. But in some situations government assistance is clearly required for a change in bargaining structure, and the 1970s have been marked by this kind of intervention. A major objective is to minimize damage to third parties (especially the general public).

In some cases the intervention has been with law that spells out a specific

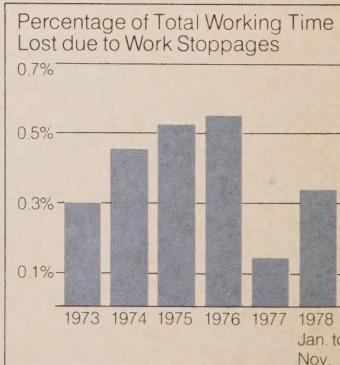
bargaining relationship—for example, the construction industry, the public service, hospitals, and teaching in some jurisdictions. Also, labour relations boards in some provinces (as in British Columbia) have been given more power to restructure bargaining units.

All of which is too new to draw firm conclusions; the results are mixed. One emerging danger is that forced centralization could create more conflict, not less. The parties involved must see the need for it, and collaborate to set it up. In this connection government assistance will in some cases be important in helping the parties achieve more rational structure.

Changes in the law also are needed if the impediments to wider-based bargaining are to be removed. Labour relations boards need more flexibility and more scope in defining bargaining units. We have in this country a maze of labour-relations legislation with different procedures, operations and applications working to “compartmentalize” various groups. Some industries are subject to two labour relations acts.

Review of this situation has begun in earnest in many quarters, and it promises progress.

But whatever changes occur cannot be seen as a potential panacea for work stoppages or wage-inflation problems. Changes will be evolutionary, and must meet the needs of the participants. These long-term changes will do little to resolve the country's short-term problems.



The crowded bargaining calendar

(Some current and forthcoming negotiations that will help establish the wages trend. The list is selective, not comprehensive.)

Employer	Union	Bargaining Unit	Contract Expiry
Winnipeg City	Amalgamated Transit Union; Canadian Union of Public Employees	1,225 bus operators, tradesmen, labourers; 3,600 inside and outside workers	Dec. 30
Winnipeg City	International Association of Fire Fighters; Winnipeg Police Association	895 firemen; 900 police officers	Dec. 31
Manitoba Health Organization	Manitoba Organization of Nurses Assoc.	5,000 nurses	Dec. 31
Greater Vancouver Regional District; Vancouver City	Canadian Union of Public Employees; Vancouver Municipal and Regional Employees Union; National Association of Fire Fighters; B.C. Peace Officers Association	5,300 inside and outside workers; 780 firemen; 1,000 police officers	Dec. 31
Toronto City and Metro Toronto	Canadian Union of Public Employees	10,500 inside and outside workers	Dec. 31
Government of Canada	Public Service Alliance of Canada	20,595 general labour and trade employees	Jan. 7
House of Seagrams Ltd. (N.B., Que., Ont., Man.)	Distillery, Rectifying, Wine and Allied Workers Union	1,000 plant employees	Jan. 31
Lakehead Terminal Elevators Association, Thunder Bay	Brotherhood of Railway, Airline and Steamship Clerks, Freight Handlers, Express and Station Employees	1,500 grain elevator employees	Jan. 31
Dominion Textile Ltd. (various Quebec locations)	Canadian Federation of Textile Workers	2,950 production employees	Feb. 15
Northern Telecom, Montreal, Quebec	Canadian Union of Communication Workers	3,115 hourly rated employees	Feb. 25
International Nickel Company of Canada, Limited, Thompson, Man.	United Steelworkers of America	2,665 mine employees	Feb. 28
Manitoba Government	Manitoba Government Employees Association	13,060 public service employees	March 23
British Columbia Hydro and Power Authority	Office and Professional Employees' International Union; Amalgamated Transit Union	3,600 office, clerical and technical employees; 3,075 transit and maintenance employees	March 31
Ontario Hydro	Canadian Union of Public Employees	14,915 public utility employees	March 31
British Columbia Food Industry Labour Relations Council	Retail Clerks International Union	5,500 retail store and warehouse employees	March 31
Cominco Ltd. (Kimberley, Salmo, Trail, B.C.)	United Steelworkers of America and various CLC chartered local unions	4,350 mine, mill and office employees	April 30
Marine Industries, Sorel, Que.	Federation of Metal Trades, Mines and Chemical Products Union	3,200 shipbuilding employees	April 30
Association of Construction Contractors of Quebec	Construction Building Trades of Quebec	50,000 construction employees	April 30



The Monitor is published quarterly by the Centre for the Study of Inflation and Productivity, under the authority of the Chairman of the Economic Council of Canada.

Editorial Board: Robert Douglas, Graham Gibb, Donald Hanright, Brian Molloy, Patrick Robert, Donald Rowlett, Douglas Smee, Monica Townsend.

Editors are welcome to reproduce material in *The Monitor* in whole or in part, with appropriate credit.

Inquiries: (613) 993-0796.

Offices: 333 River Road, P. O. Box 527, Ottawa K1P 5V6.

ISSN 0702-0627 (*The Monitor*)

(Également disponible en français)